

Book No.
191 R81zp

ACCESSION
190005 ✓



SAN FRANCISCO PUBLIC LIBRARY



3 1223 02606 1367

1711
R813h
PAPERS IN HONOR OF

JOSIAH ROYCE

ON HIS SIXTIETH BIRTHDAY

[This volume appeared also as Vol. XXV, No. 3, May, 1916, of
THE PHILOSOPHICAL REVIEW.]

3 1223 02606 1367

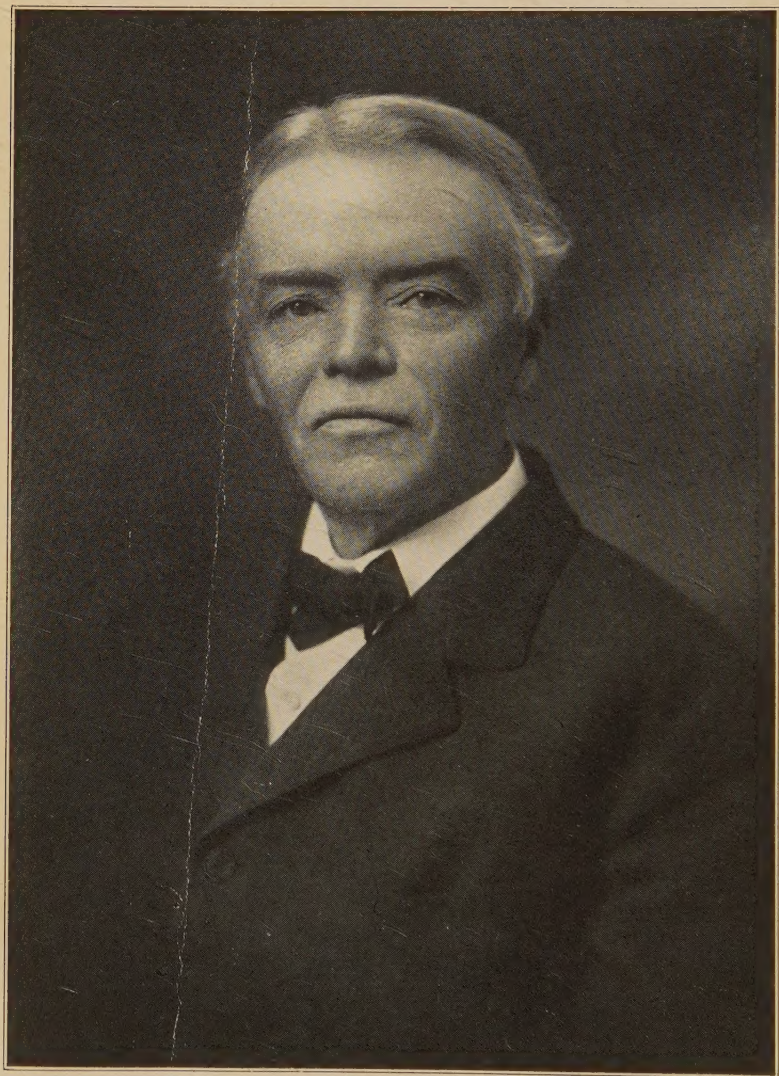
TABLE OF CONTENTS

	PAGE
Frontispiece	
Prefatory Note	I
Josiah Royce: The Significance of his Work in Philosophy . G. H. HOWISON	3
Voluntarism in the Roycean Philosophy JOHN DEWEY	17
Novum Itinerarium Mentis in Deum CHARLES M. BAKEWELL	27
The Teleology of Inorganic Nature LAWRENCE J. HENDERSON	37
The Foundation in Royce's Philosophy for Christian Theism.	
MARY WHITON CALKINS	54
The Interpretation of Religion in Royce and Durkheim . . GEORGE P. ADAMS	69
The Problem of Christianity WM. ADAMS BROWN	77
Royce's Interpretation of Christianity B. W. BACON	87
Error and Unreality W. H. SHELDON	107
Realistic Aspects of Royce's Logic E. G. SPAULDING	137
Neo-Realism and the Philosophy of Royce MORRIS R. COHEN	150
Negation and Direction ALFRED H. LLOYD	155
Types of Order and the System Σ C. I. LEWIS	179
Interpretation as a Self-Representative Process J. LOEWENBERG	192
On the Application of Grammatical Categories to the Analysis of Delusions.	
E. E. SOUTHARD	196
Love and Loyalty E. A. SINGER	228
Josiah Royce as a Teacher RICHARD C. CABOT	238
Royce's Idealism as a Philosophy of Education H. H. HORNE	245
The Holt-Freudian Ethics and the Ethics of Royce.	
WILLIAM ERNEST HOCKING	251
Words of Professor Royce at the Walton Hotel at Philadelphia, December 29,	
1915	279
A Bibliography of the Writings of Josiah Royce BENJAMIN RAND	287

191

R 813p

190005



JOSIAH ROYCE

1914

(Aet. 58)

PAPERS IN HONOR OF
JOSIAH ROYCE
ON HIS SIXTIETH BIRTHDAY

PREFATORY NOTE.

IN November, 1915, Professor Josiah Royce completed his sixtieth year. A number of men who have studied and worked with him as colleagues and students during some part of the thirty-seven years of his professional activity had for some time planned to make on this occasion some public recognition of Professor Royce's distinguished services to philosophy, both as a teacher and as a writer. The American Philosophical Association, of which Professor Royce was president in 1903, expressed through its officers a request that its members should be permitted to share in this celebration. Accordingly, at the annual meeting of the association held at the University of Pennsylvania on December 28-30, 1915, two of the sessions were devoted to papers dealing more or less directly with various phases and doctrines of Professor Royce's philosophy. Professor Royce was the guest of honor at a banquet at the Hotel Walton on December 29, at which were read letters of congratulation and appreciation from distinguished philosophical scholars of this country and of Europe. At this banquet Professor Royce gave in response to the various toasts and messages of congratulation the interesting autobiographical account of his experiences and personal convictions which is published in this number of the REVIEW.

In addition to the papers read at the meeting of the American Philosophical Association, this number of the REVIEW contains papers by a number of other writers who desired to have a share in the celebration in honor of Professor Royce. The presenta-

tion to the readers of the REVIEW of the large number of valuable papers inspired by this occasion has been made possible by the support extended by a few of Professor Royce's friends.

It is interesting to note that these papers, although contributed by men who in some form acknowledge a debt of gratitude to Royce, and many of whom have been his pupils, are largely critical as well as appreciative. It is doubtless true that although we may adopt labels like 'Idealism,' 'Pragmatism,' and 'Realism,' for rough classificatory purposes, yet philosophy does not tend to develop in this country in the form of closed schools. The influence of a teacher like Professor Royce, great as it has been and is, does not lead to the literal adoption of his doctrines, but manifests itself in stimulating and promoting the spirit of inquiry and of universality through which his own philosophy has been developed. This, indeed, has everywhere been characteristic of the influence of great philosophical teachers. The spirit of true loyalty to the master has always been, *amicus Plato, sed magis amica veritas*.

J. E. C.

JOSIAH ROYCE: THE SIGNIFICANCE OF HIS WORK IN PHILOSOPHY.

IT is with sincere satisfaction, Mr. President and Members of the Association, that I accept the invitation, conveyed through the chairman of your Committee of Arrangements, to take part in the proceedings at this meeting in honor of Professor Josiah Royce. I am glad of this opportunity on my own personal account as well as on that of the University of California, his original alma mater, which is justly proud of him and of the notable record he has made. In the admiration felt by his native university, I of course strongly share. Parted by the breadth of the continent though we have been for these long years since 1884, we have nevertheless had many students in common. In fact, several of your prominent members, holding the chief positions in their subject at leading institutions of the country—at Yale, at Johns Hopkins, here at California, at Stanford, at Missouri, and, till recently, at Texas—had their initial training here at California and here received the stimulus that fixed them in a devotion to philosophy. In the pursuit of this they became, by my advice, as members of the Harvard graduate school, the diligent hearers of Professor Royce and his colleagues. Of his own original students, on the other hand, prominent ones, whose ability and whose profit from him their present positions before the country—at Harvard, at Columbia, at Michigan—now prove, in a degree that must give him well-founded gratification, came into the department of philosophy at California as my younger colleagues; there, by taking a constant part in the graduate seminar of advanced logic and metaphysics continuously conducted here, they became my students as well as my colleagues, and returned later to the east with an acknowledged attachment to this University which has been of profound satisfaction to its authorities and of great benefit to myself.

This important interchange in a common calling has given me an especial interest in Professor Royce's labors, and has caused

me to follow his work and his very numerous publications with an attention that I hope has corresponded to the worth of his performance.

On this extraordinary occasion of his honoring recognition by his colleagues from all parts of the country, I therefore join cordially in congratulating him on his notable career. It has indeed been of very marked achievement. Beginning in a small country village among the foothills of the Sierra, on the remote shores of our western frontier, amid surroundings none too friendly of the rugged pioneer life in a mining region, it has grown to international proportions; his words have been heard and his thoughts upon many of the most difficult human questions have been considered beyond both the great oceans. Such an extended hearing has doubtless been aided by the great spread of the English language, following on the extension of British empire and American colonization; but his native equipment and his active industry have enabled him to take advantage of this, so that still in middle life, having barely passed his sixtieth year, he has gained for the thinking of another American a serious general attention. It is a fact of which, as his countrymen, we may all well be glad; a case of the unexpected that is solid experimental reality; a thing for which we can sincerely give him recognition without flattery, and without any suspicion of compromising our self-respect.

Yet as members of a profession so serious in import as ours, in which he has proved himself such a valiant example, we should fall short, I am sure, of his own wishes if we spent this occasion in mere personal laudation. Rather, we should gather from his career and his work the real lessons which they convey for our proper business—the stimulation and leadership of thought as the guide of life. This is not a time, certainly, for rigid criticism or disputative objections; but we may well take the trouble, indeed we must not fail to take it, to ascertain what important questions he has put before us for settlement; above all, what positive contributions he has left us, upon which we must proceed in the further work which as thinkers we must do if we would go forward in the genuine spirit of his example.

What, then, has been the indisputably permanent thing in his work? What doctrine, or doctrines, has he put forward, from which we cannot wisely depart, but on the contrary must adhere to, must develop and improve, if we are to succeed in our real business? And what, on the other hand, must we be on our guard against, if against anything, lest we run into views injurious to our human calling, and mislead others into error?

For an illumining answer to these questions, I must ask you to listen to certain biographical items, not generally known, or, if known, not taken enough public account of. Without in the least detracting from his own powers and credit, it is no doubt a fact, of which Professor Royce himself has made the most loyal and public acknowledgment, particularly in his Phi Beta Kappa oration at Harvard, though repeatedly and in many other places, that he owes a considerable part of his singular success to his early recognition and hearty appreciation by his friend William James. James, in his published answer to the question, *What is the good of going to college?* has said with penetration that it is the power this gives you to know a good specimen of a man on sight; and this, his prompt discovery of our now noted colleague has pointedly illustrated. It was from James, my own greatly valued friend as well as his, that I first heard of Royce; not directly, for he did not himself speak to me on the matter, but by a message sent through one of my students at the Massachusetts Institute of Technology, inquiring whether I had met "Mr. Royce of California," and, in case I had not, advising me not to miss seeing him. This must have been quite soon after Royce's graduation at California, perhaps while he was on his way to his studies at Johns Hopkins—somewhere about the fall of 1876. Nothing came of this, however: I was too busy to hunt the young man up (he was then in his twentieth or twenty-first year), and I heard nothing more of him until after he had taken his doctorate at Johns Hopkins, where he had heard James (and perhaps Stanley Hall) in psychology, Peirce in logic, and George Morris, the able and accomplished translator of Ueberweg, on the history of philosophy and on Hegel, had gone to Germany and heard I know not whom, and had returned to California

to take an instructorship at his alma mater, in the department of English, where the poet Sill became his chief. Here I later heard he was not happy with some of his learned colleagues. With a genuine insight into the needed foundations for the writing of English, or indeed of any language, he discerned it was necessary to lay an underpinning of logic. For this purpose, he wrote and printed in San Francisco, in 1881, and used with his classes, his remarkable *Primer of Logical Analysis*, a work of great originality and suggestiveness, in fact one of his best productions. But many of his colleagues and some of the Regents thought this a transgression of the departmental boundaries and voted that the instructor must stick to the department lines, must teach English composition and not logic; and so on, and so on. This led Royce to be glad to give up the California position, and to come, I think in 1882, to Harvard as a substitute for James, who was to be away in Europe on his sabbatical. With a true thinker's confidence, however, he offered in addition to his regulation duties a public course of lectures on the philosophy of religion. It proved a great "take," and made his Harvard fortune; he afterwards printed the substance of the lectures in his first published work, *The Religious Aspect of Philosophy*. In his first years at Harvard I still got no opportunity to meet him, being absent in Europe and, later, at Michigan, and far too busy with my own work. But I heard of him one day in a way that challenged attention. The late Edward Everett Hale asked me if I had seen or heard "this striking young man from California"; when I said no, Dr. Hale went on: "Well, he seems noticeable, surely. What do you think I heard him doing in a lecture the other afternoon? Why, nothing less than showing that our human ignorance is the positive proof that there is a God—a supreme Omniscient Being!" This certainly caused me, as the slang saying is, to "sit up and listen," but I still had no opportunity to meet the young lecturer until I saw him, a singular figure, at the annual dinner of the Examiner Club, in May, 1884. Even then we got no chance to speak together, but I was so struck by his unusual appearance, that of a middle-aged British head and countenance set on a smallish youthful body,

that I could not avoid asking a neighbor at the table who he was, and was told it was Royce. It was not until the autumn of 1884, when I came to California to take up the duties of the new Mills professorship of philosophy, that at length I met our guest, who was spending his vacation there in work upon his history of California. I saw him frequently then, and found him the good character and the vivid thinker that we have all since known him to be. Yet in all our talks, I never gathered what, if anything definite, his *Weltanschauung* might be, as our German brethren call it. I kept remembering what George Morris had said to me about him, that "he could never himself learn what the young man thought on any of the questions or systems upon which he (Morris) lectured." It was not until 1885, in the fall or winter, that Royce sent me a copy of *The Religious Aspect of Philosophy*, from which I learned his substantial membership at that time in the school of Hegel and was in consequence greatly pleased, as I was then myself still a good Hegelian, as yet unsuspecting the profound inconsistency, which I came ere long to discover, in the doctrine of the Hegelian "center," that the real universe is an all-inclusive Spirit, a God who is a "Person of persons," in whom all particular and individual selves "live and move and have their being": a stern and uncompromising system of universal Determinism.

In 1895, a few years after our California foundation of the Philosophical Union, we began a series of Annual Addresses by the authors of the books used by the society as bases for its studies in the successive years. At our first public meeting for this purpose, Professor Royce, then ten years beyond the publication of his *Religious Aspect of Philosophy*, and well established in the public notice, was naturally the chief speaker. The assemblage was so large as not only to fill the auditorium to its capacity, but to make it impossible for hundreds to find entrance; the people from San Francisco, Oakland, Alameda, and Berkeley, were greatly curious to see and hear the first graduate of their State University who had attained to a full professorship at Harvard. Professor Royce read with his well known animation and skill a paper, two hours in length, to this audience who never

took its attention off him, though the great majority of them must have been quite innocent of understanding what he said. The proceedings, including his address and notable papers on it, by his honored teacher Joseph LeConte and Dr. Sidney Mezes, their common student earlier, who had long been also mine,¹ were two years afterwards published in the volume entitled *The Conception of God*; the three papers, when thus printed in 1897, were accompanied by a series of my own comments, which I felt I must not refrain from making. I am burdening you with these long digressive details, because I wish to bring unmistakably to your attention this important but little read volume, chiefly by Professor Royce, containing besides his address his much fuller discussion of his theory of Idealistic Monism as the true account, as he then thought, of the nature of the absolutely real world; containing also his replies to his three critics. It is undoubtedly one of his most significant writings, indispensable for a clear understanding of the metaphysical theory which he then held, and continued to hold for years afterwards, and contains his clearest as well as most condensed statement of the noted argument by which he believed he was demonstrating the monistic conception of the nature and actual existence of God, and by which he certainly and conclusively refuted agnosticism. For this last reason, this book, like his other and still less known work that I have mentioned, the *Primer of Logical Analysis*, constitutes part of his enduring contributions to our field. It may well be made a landmark, and a base for our further advance in settled decisions in our subject.

The allied theory, that the defense of our capacity for absolute certainty must rest upon an idealistic metaphysics, is, as I think, Professor Royce's other contribution to philosophy to which we must adhere; I speak of it as his contribution, because, though the doctrine is not his save by hearty acceptance, I am thinking now of the subtle and unexpected argumentation by which he has supported this oldest and best expression of our historic human insight, dating from Socrates and Plato in Europe,

¹ At that time in charge of the philosophical department at the University of Texas, later its president, and now president of the College of the City of New York.

but having its earlier beginnings in the philosophies of the Orient. It is this native gift for original argumentative research that makes the genius of our colleague. His two volumes of Gifford Lectures, *The World and the Individual*, are full of this original reasoning; from this work I commend to your special attention the chapters in the first volume that establish a conclusive damnatory critique of what its advocates have chosen to call Realism. The great virtue of this critique is its vindication of Systematic Truth as the only valid director of feeling and conduct, and its implied definition of idealism as the consistent application to the control of desire and action of the universal logic that Truth as a system involves: nothing stands alone and isolated in the universe present to genuine thinking; each truth rests on other and on all. Let us keep a secure hold upon this view of what defensible idealism is, in contrast to the pseudo-idealism that means the pursuit of sentimental dreams about the so-called 'ideal,' and the utterly vague aims that go with this. Sound idealism is simply the rule of evidenced judgment, directed by the primordial Ideas, over the rest of life. How correct it is as a theory of knowledge, the act by which the individual, as thinker, displays its universality of view; and how easy the *non sequitur* by which, for instance, Hegel and his school suddenly convert this doctrine of logic, correct so far as it goes or can go, into their theory of Monism; a theory of Realism, in fact, though disguised in the misleading name of Absolute Idealism.

It is interesting to notice, in the continued writings of our colleague, that as the years have gone forward his views have apparently been changing; in the theory of knowledge, possibly more than truth will warrant. At any rate, in recent publications he has now served warning on us that he need no longer be counted as belonging to the school of Hegel; that, indeed, he never did cardinally belong there, and that, as some early reviewer has said, his doctrines are more akin to the views of Schopenhauer than to those of Hegel. We may venture to wonder at this last announcement. There has never been a trace of pessimism nor of asceticism in Royce's thinking, nor any agreement with Schopenhauer other than the prominence which, in common

with James, and in fact with nearly every other thinker in the long list of Harvard philosophizing, he gives to what he calls Will, though in a sense different in kind from Schopenhauer's and also from James's. This nominal Voluntarism I am confident we may safely discount, as inconsistent with our thinker's idealistic view, so far as this is true. It of course savors of the general Elective Theory on which the present Harvard university system is founded, and, however really it may violate the motto *Veritas* borne on Harvard's preferred seal, indicates the subtle influence that James's voluntaristic theory of the psychological world of 'perception,' as an assemblage of particulars rendered 'real' by our selective picking out from the undifferentiated mass of 'sensation,' exercised upon his friend's thinking when this came upon the difficult question of the metaphysical reality of the world of particular selves, and the preservation of the individual person notwithstanding the all-determining fact of God as the Oversoul. It is not for us to be surprised that James himself always remained dubious over this translation of his psychological into a metaphysical doctrine, wavering to the end between a puzzled though admiring sympathy and a general pragmatic scepticism toward every view tinged, however faintly, with the color of the Absolute. To James, of course, 'absolute' whether as a comparatively humble acolyte, adjective or adverbial merely, or as elevated to the lordly substantive office and made, as the Absolute, with a capital A, to play the part of a Substitute God, was a conception under suspicion; indeed, almost under ban. The deep-seated agnosticism that lay concealed in Pragmatism prohibited the doctrine of Truth itself, in the historic meaning of an absolute certainty, and required a new meaning for the very words 'truth' and 'true,' if such a thing were in any way possible. To James the true and the real, or, rather, the true as an attempted depiction of the real, became a strictly partisan matter; as he used often to say, "A question of taste, you know." Such a voluntaristic philosophy, consistent enough with 'radical empiricism' and its really inevitable corollaries of scepticism and agnosticism, is in fact contradictory to that strong and profoundly argued idealism of *The World and*

The Individual, which has logically annulled Realism by reducing it to the unavoidable and ruinous shuttling from materialism to agnosticism, from agnosticism to materialism, ever back and forth, and forced the thinking holder of it out of its lines and into the wide-open field of Mysticism, to be driven thence, again, into the clutches of Critical Rationalism. From this one must gain rescue by the discovery of the dialectical nature of partial or partisan knowing, and by insight into the rational harmonic that carries disputative differences up into the larger embrace of interpretative conciliatory thought.

It is on this strongly reasoned basis of a logic idealistic in the sense that it replaces, by implication, the abstract scheme of the mere coherence of concepts by a conference of thought in a society of intelligences, guided, in its very initial sources, by the conciliatory Ideas (the True, the Beautiful, the Good) that provide a wider and higher region of interpretation wherein the disputes of partial thinking may seek and find reconciliation, that the sober and genuine idealistic philosophy must henceforth build. Voluntarism is consistent enough with Pragmatism, but it cannot protect itself, nor us, against sceptical Indifferentism, and cannot, in the last resort, fortify intelligence against materialism and atheism. When 'truth' gets translated into mere preference of feeling, or even into sturdy resolve, and yet remains, after all, but an uncertain conjecture, subject to revision, and sure to come to this in the lapse of time, a revision that with the lapse must recur and recur and recur *in perpetuum*, it cannot but cease at length to be worth the trouble of the guess and the testing by trial. The defect of Pragmatism is that its sole achievement is negative, is rejection. It is a factor, of course, in the dialectic of experience, the history of changing judgments in and concerning the transient world of the senses; it belongs to that logic that demands the correction of mistakes, whether private or communal. But it is not upon the level of the affirmative reason.

Very interesting and encouraging is it, that in the changes of view, whatever else they may be, that he has now publicly announced, we can notice that in the numerous volumes he has published since his lectures at Aberdeen on the Gifford Foundation,

Professor Royce has continually dwelt more and more upon the notions of Loyalty and the Community. In these indications of a concrete and social idealism, we who earlier than he have accepted the view of a primordially harmonic pluralism (if indeed he has changed in that direction), may naturally take satisfaction and hope. We desire the aid of so strong a man, who, in addition to his native gifts, has had the good fortune to come to such a fame and to so great a consequent influence. It is not true, as the old saying boasts, that 'truth is mighty and will prevail.' It will prevail if men are on the search for it and on guard for its security; but not otherwise. The burden is upon *us*, as thinkers, to find the truth that is true on the largest and most assured scale for our human nature, to seek it by that weighty and mutually interpretative intercourse of thought which the aid of the civilized community affords each of us, in return for the fealty, the duty, we owe to it and pay to it, and to our fellow-members that with us compose it.

An aspect of these changes of view, indicated rather than clearly explained, Professor Royce has recently referred to his later studies of the logician Charles Peirce, a thinker to whom James always declared himself greatly indebted, and to whom it would almost seem that Royce has now turned, after the loss of his great friend, as if to render justice to a mind not sufficiently appreciated before; or, possibly, in a reverent penitence for not having during his friend's lifetime given heed enough to James's repeated praises of Peirce.

These studies in Peirce, we are told, with a frank sincerity wholly to be praised, have resulted in a change of view, on our colleague's part, in the theory of knowledge. He now presents himself as an adherent and developer of Pierce's doctrine in this important field of philosophy. He tells us, with right caution, that he is by no means sure that in the construing and interpretation he has put on Peirce's views he would have had their author's own approval; but the new theory of knowledge, which Royce holds to be true, and of high importance, is set forth at its full in the second volume of his recent work, *The Problem of Christianity*. I may take it for granted, of course, that you are

all familiar with this new theory, and its triple logic of perception, conception, and "interpretation," as our author calls it. In this last term he appears to use the word in the sense of the clarification of issues between disputing parties, alluding to the pacificatory function of heralds between warring armies speaking different tongues, and needing to have their contesting purposes made intelligible and susceptible of mutual understanding and compromise; compromise, however, only on condition of larger advantages accruing from peace than from struggle.

It is to be hoped that the empiricism of Peirce, fully as 'radical' as that of James, may not have invaded the high and soundly supported idealism of Royce's earlier philosophical activity. At any rate, we need not permit it to weaken our own; for this 'radical empiricism' is a glaring case of incomplete and one-sided thinking, capable of refutation, and in fact refuted by Royce himself in *The World and the Individual*, and the other writings belonging to his idealistic period, if that has passed. But perhaps in this reference he has not changed.

In his Phi Beta Kappa oration our colleague has given us a list of the three names that he reckons foremost in the history of American philosophy,—Jonathan Edwards, Emerson, and James. These alone, he thinks, have commanded alike a world-wide, especially a European, attention. For my own part, I am not satisfied with a ranking based on public acceptance and fame alone. Again a current proverb proves, in the deepest sense, to be deceptive: *Securus judicat orbis terrarum* is far from true, even as an historical fact; much less, on the scale of rational worth and merit. Emerson and James were both great men of letters, great writers; yes, great thinkers, if you will; but they do not belong in the strict list of philosophers, the one a moral sage and poet, the other a richly endowed and greatly generous human character, with a style that for unaffected manly vigor has hardly been surpassed, perhaps not even equalled, and a diction so brilliant and pungent, often, as to seem to pierce and fuse the very substance and being of the objects it describes; I yield to nobody in my admiration of him as a man or as a powerful writer. Nor in a lofty estimate of Emerson, the very

foremost of our American poets, the leading writer of serious prose in his century, the most awaited, most stimulating moral influence in the world of his day, in this regard surpassing even his friend Carlyle. But both look out of place in a series with such a master of logic and technical philosophy as Edwards; that mastery in logic is a cardinal test of the true philosopher, and neither Emerson nor James possessed it. Both, on the contrary, did their best to discredit it, Emerson by taking refuge in mysticism, James by an attempt through psychology to set feeling and will into the deciding and directive place in conscious being.

It is frightful, when one stops to think what it must mean to the reality of a moral life for men, for their *duty*, for a true 'reign of God' in the soul, to hear Emerson glorifying the Oversoul: "We lie in the lap of immense intelligence," he says, "which makes us receivers of its truth and organs of its activity. When we discern justice, when we discern truth, we do nothing of ourselves, but allow a passage to its beams." (*Self-Reliance*, p. 56, quoted, too, by James in his *Human Immortality*.) There were no doubt two Emersons, as James has rightly pointed out, the plotinizing Emerson of the Oversoul and Emerson the instinctive New Englander, supremely sensitive to individual responsibility, of the *Voluntaries* and the *New England Reformers*. But neither the one nor the other had any logic wherewith to defend himself; both were satisfied with mystic insight, incommunicable, and the method of mere declaration: Say what you see, and say it adequately, and there will be no need of argument. And for James, all argument, the whole laborious round of logic, ended in insoluble dispute, in utter moveless loggerhead, the death of decision. The only way out of this was to listen to your felt wishes, choose the side you care for, put your will into its service, and strike for your cause; whether it win or lose, *you* will have won, in the sense that you will not have fallen as a malingerer or a coward. Of which we must in sober judgment say, it is certainly courage of a sort, but a courage to no purpose: *c'est magnifique, mais ce n'est pas la guerre*.

We ought to think of both Emerson and James, not that they

were not at least as great as Jonathan Edwards, but that more likely they were both much greater, and that their world is right in undoubtedly supposing them so. Only, they are out of the true perspective when set in a row with Edwards; or, better perhaps, Edwards is in the wrong perspective when placed in the line with them. James, it seems to me, belongs quite justly in a list following Emerson; in a list of four English prose writers of the nineteenth century who deservedly won the greatest notice and the widest influence,—Carlyle, Emerson, Mathew Arnold, James: the last at some distance below his predecessor, just as Arnold fell discernibly below Emerson and Carlyle. The four were powerful thinking writers rather than philosophers; something probably greater than philosophers. Are not sages and poets men of larger compass than philosophers as such? Unless indeed, like Plato, philosophers should be all three at once, and so, again like Plato, become incomparable and live in all ages.

If the list of strictly philosophic thinkers in our country, rightly headed by Jonathan Edwards, who partly settled the question as to the seat of human freedom by showing incontestably where it is *not*, that it is not in the will, is now to be continued, it is little to be questioned that the place our colleague, in such quiet and natural, though indeed unavoidable, self-forgetfulness, assigned to his gifted friend James, really belongs to himself. I would insert other names in the list, on the ground of merit rather than public note—President Samuel Johnson (disciple of Berkeley and stimulator of Edwards), James Marsh, Rowland Hazard, Joseph LeConte, John Fiske, Thomas Davidson, George Morris, Carroll Everett, Elisha Mulford, and, above all, William Torrey Harris, so long our unequalled Commissioner of Education, our master scholar in Hegel, of the largest international recognition; the series has not been brief, though I confine it, of course, to those who have passed from the living. But let our colleague accept the honor that events, seconding his native powers, have conferred upon him. Let him rejoice, in common with us all, at his great good fortune. Seldom is it that genius of his especial sort meets with such general public acknowledgment: the taste nowadays is for intelligence in other

fields, more in the public sight, more accessible to the multitude; more directly advantageous, also. As Professor Royce, I may properly repeat, is still far from being old, still not past middle life, we have the hope, yes, the expectation, that he will continue to contribute, as he has hitherto done, to the stores that enrich our calling. I heartily congratulate him again upon the merited honor of the present occasion, and wish him health, continued life and powers, and yet added successes.

G. H. HOWISON.

UNIVERSITY OF CALIFORNIA,
BERKELEY.

VOLUNTARISM IN THE ROYCEAN PHILOSOPHY.

I AM not about to inflict upon you a belated discovery that voluntarism is an integral factor in the Roycean theory of knowledge. Were it not obvious of itself, we have the emphatic utterances of Professor Royce himself in his address to this Association twelve years ago. Following a clew in that paper, it is my purpose to present some considerations relative to the relationship of voluntarism and intellectualism¹ in the earliest phase of Mr. Royce's published philosophy, thinking that the matter has historic interest and that it involves points relevant to forming a critical judgment of his later developments. Let me begin by quoting Mr. Royce upon his own early attitude.¹ In 1881 he wrote a paper in which he "expressed a sincere desire to state the theory of truth wholly in terms of an interpretation of our judgments as present acknowledgments, since it made these judgments the embodiments of conscious attitudes that I then conceived to be essentially ethical and to be capable of no re-statement in terms of any absolute warrant whatever." And, referring to his change of views in the last respect, he says: "I am still of the opinion that judging is an activity guided by essentially ethical motives. I still hold that, for any truth seeker, the object of his belief is also the object of his will to believe. . . . I still maintain that every intelligent soul, however weak or confused, recognizes no truth except that which intelligently embodies its own present purpose."² The statement is explicit. Taken in connection with the earlier position, it arouses curiosity as to the reasons for the transition from subordination of intellect to will to the reversed position.

I first turn to the paper of 1881.³ The paper was one of the

¹ To avoid misunderstanding I would say that intellectualism is here used not in antithesis to empiricism or to sensationalism, but to denote any philosophy which treats the subject-matter of experience as primarily and fundamentally an object of cognition.

² *PHILOSOPHICAL REVIEW*, Vol. 13, p. 117.

³ *Journal of Speculative Philosophy*, Vol. 15, p. 360.

addresses at the Kantian centenary. Its title is, significantly, "Kant's Relation to Modern Philosophical Progress." It makes an attempt to assess, on one hand, certain contemporary movements in the light of Kant's critical principles, and, on the other hand, to indicate the ways in which Post-Kantian thought suggests a reform in Kant himself. The first part holds that Kant's criticism still bars the way to every attempt at a philosophical ontology. The ontological monism of Mind-stuff, of Panlogism,¹ of Alogism alike stand condemned as illegitimate excursions into ontological dogmas. The reforming portion centers about the Kantian dualism of sense and reason. The difficulty left over by Kant is clearly stated: A given category, say causality, is nothing unless applied to experience. But how can it be applicable? Only in case experience furnishes instances of uniform succession. But in that case, why the category? Thought is not needed. Or if it is said that it is necessary to introduce necessity, how about necessity? If sense experience doesn't justify it, then it too is futile. If it does, thought is superfluous. Either sense already conforms to order or else it is inexorably at odds with it. Now Royce's solution is, in brief, as follows. Sensuous, irresistible presence, presence wholly unquestionable, absolutely certain, is an ultimate fact: a datum. Spatiality (as had just been claimed by Professor James) exists also as just such a simple irresistible quale. Succession as instantaneous sequence is also such a datum. What thought, as

¹ With respect to the problem of the evolution of Royce's later philosophy in its entirety, it is extremely important to note the ground for rejection of that Panlogism which was later accepted. It is connected with the fact of evolution. How can an Absolute Rational Whole change? How can it consist with progress from an earlier lower to a later higher? Or how can we think of every stage of the historical progress as itself a goal, when "the first starving family, or singed moth, or broken troth, or wasted effort, or wounded bird, is an indictment of the universal reason"? "Either evolution is a necessity . . . and the Absolute must be conceived as in bonds, or else it is irrational and the Logos must be conceived as blundering." I call this ground of rejection extremely important, for surely the key-note of all Royce's later philosophy is the formulation of a way to combine the notion of the eternal moment with genuine struggle and defeat in time. The ethical connecting link in the *Religious Aspect* is the conviction that all genuine virtue or moral good exists at the point of overcoming evil. Hence the Absolute would be lacking in moral quality unless in its eternal changelessness it included and overcame the temptations and struggles of the finite and changing.

essentially spontaneous, essentially active, does is to give the immediate momentary datum a reference beyond the present moment. However, the reference is not at first to an external cause. The primary reference is a time reference. In every cognitive act there is an assertion that the given data stand for, symbolize, recall, resemble, or otherwise relate to data that *were* real in an experience no longer existent. In short, thought primarily asserts or acknowledges the past. Then there is acknowledgement of the future: the synthesis of anticipation. Chief of all there is acknowledgment of other conscious beings than ourselves, acknowledgment of a universe of reality external to ourselves. Now "for the objects of these acts no possible theoretical evidence can be given more nearly ultimate than the one great fact that through acknowledgment and anticipation they are projected from the present moment into the past, future, and possible world of truth." And finally, "the goal of philosophy can be found only in an ethical philosophy. The ultimate justification of the act of projecting and acknowledging the world of truth constructed from sensible data" must be found in the significance—*i. e.*, in the moral worth of this activity itself. In short, the act of thought or judgment by which sense data become a knowable world of objects and a world of other minds is itself an act, an affirmation of the spontaneity of consciousness. Hence it is impossible to get behind it intellectually or give it an absolute warranty: it has to be justified in terms of its own worth as an act,—that is to say, ethically.

The student of Royce's writings will see here certain ideas which are found in all his later writings: The acceptance of empirical sense data as ultimate, things simply to be accepted as they are; the conception of them as intrinsically momentary, yet while including in themselves the fact of immediate or instantaneous sequence; the conviction that the problem of knowledge is, on the one hand, the problem of the temporal reference of these data, and, on the other, the problem of their reference to other minds, to orders of experience transcending our own; the belief that knowing is an act, an assertion, an acknowledging. Conjoined with them is the unfamiliar text that the active side,

the voluntaristic and ethical side, is ultimate, and that no theoretical justification for it can be found. In his *Religious Aspect of Philosophy* published only four years later, we find established, however, the reversed relationship: we find set forth the Roycean all-inclusive thought which eternally realizes itself in all fragmentary and partial acts of will. From henceforth acts of will are not self-justifying. The ethical is transcended in the cognitive.

I make no pretence to tell how the change came about, in the sense of ability to reconstruct Mr. Royce's mental biography. There are, however, a number of indications of the *logical* sources of the change, which are found in the *Religious Aspect*; and to them I invite your attention. In the first place, the Fichtean tone of the acknowledgement in the first essay of the reality of other experiences, other wills, than our own is evident. It is not so much a bare fact that we acknowledge them, as it is a supreme moral duty to acknowledge them. Our natural, carnal acknowledgment is not of them as Experiences like our own but rather as factors which affect our own well-being: selfishness is the radical moral evil. This *motif*, implicit in the earlier document, is explicit in the *Religious Aspect*. But recognition of this fact brings with it the recognition of the reality of clash of wills, and of the need of an organization of wills or aims. To restate the treatment, rather than to try to paraphrase it, if my own cannot be the ultimate law for other wills neither can the will of any other be the law of my will. There must be an inclusive organization which determines the aim of each alike. The same logic applies within one's own purposes; they too conflict and clash. Scepticism and pessimism are but the consciousness of this clash, in recognizing that amid plurality of aims there can be no ground for one making any one supreme, and no guaranty of abiding satisfaction. Moral certainty and moral confidence alike demand an organization of aims. Now such an organization cannot be itself an affair of will; it must be a matter of fact, a matter of reality or else of unreality, and hence something whose primary relationship is to knowledge. If it is valid, it is not because of anything in the "moral worth of the activity

itself" or it is just that worth which is put in jeopardy by the conflict, the plurality, of wills. The moral worth of the will can be established only on the basis of an organized harmony of wills as an established fact. Whether such an organization exists or not is a matter of truth, of knowledge, not of volition. For if one say that one wills that such an organization exist, the dialectic recurs. This is but an individual will; an assertion of one will among many. And why should *its* assertion of an organization of wills be any better than any other assertion of bare will?

In his *Defense of Philosophic Doubt* Mr. Balfour¹ had stated expressly that preference for one ethical end over another must itself be a purely ethical matter—that is a matter of choice undervivable from any theoretical judgment whether scientific or metaphysical. Each end founds a system of propositions all of which are logically coherent with one another. If revenge is an end-in-itself for me, then the proposition prescribing shooting a man from behind a hedge is a dependent ethical proposition belonging to that system. It is not knowledge but arbitrary choice which determines the end which fixes the dependent logical or theoretical system. It is fairly open to question whether such a conclusion does not follow from the principles set forth in Royce's earlier essay, when the clash of aims or acknowledging wills is taken into account. And, in the words of Mr. Royce, "The reader may ask: 'Is all this the loftiest idealism, or is it simply philosophic scepticism about the basis of ethics?' "

The moral will depends then upon an insight into a harmonious organization of all wills—an end in which pluralistic aims cease to be conflicting because they are taken up as elements into one inclusive aim. But does such an organization exist? This leads us to the discussion of knowledge and the criterion of truth. The conclusion is the absolutism of an all-comprehending eternal consciousness which has remained the central tenet of Mr. Royce's writings. "All reality must be present to the Unity of the Infinite Thought" (*Religious Aspect*, p. 433). "The possibility of an ontology and the supposed nature of the ideal absolute

¹ *Religious Aspect*, Preface, and pp. 128-130.

knowledge" which, true to the spirit of Kant, Mr. Royce had denied in his earlier essay,¹ is now asserted as the sole way out of ethical scepticism. The transition to Absolutism is through (a) discovery of the scepticism latent in voluntarism when that is made ultimate: (b) in the demand for a community of aims or organization of wills:² (c) the discovery that all recognition of ignorance and error, all sceptical doubt involves an appeal to a Judger or Thought which included both the original object and the original judgment about it. The analogy of such a comprehensive judger with the required moral organizations of wills which, in their separateness, clash, is obvious enough.

In being reduced to a secondary place, voluntarism is not, however, superseded. It persists, first, in the conception of the method of approach to Absolutism, and, secondly, within the conception of the Absolute itself. (1) The first step out of the world of doubt is through the World of Postulates—a conception substantially identical with the acknowledging activity of the earlier essay. The external world may be regarded as an assumption, as a postulate, which satisfies certain familiar human needs.³ Subjected to analysis this postulate turns out to be, in the rough, "an active assumption or acknowledgment of something more than the data of consciousness." The immediate data are of that fragmentary and transient nature which was earlier noted. Hence judgment must do more than reduce these present data to order; it must assert that context beyond them in which they exist and in which they have their real meaning and truth. This is, again, the corrected restatement of the Kantian problem. We are not faced with an incredible act of thought which forms sense-data as such, but with the act of thought which supplements the specific and empirical givens, in their temporal limitations, with the larger setting which gives them objectivity. This restatement at one stroke does away with the trans-empirical Ding-an-

¹ *J. S. P.*, XV, p. 371.

² The student of Royce will be interested in comparing this with the explicit doctrine of the Community in Royce's latest work. Peirce's influence is presumably effective in the earlier as well as the later writing, though it is less explicit in the *Religious Aspect*.

³ *Religious Aspect*, p. 292.

sich, putting in the place of a trans-empirical Reality, a trans-momentary one, and with the subjectivistic character of sense-data, in any sense of subjectivism which identifies them with a particular knowing self;—since sense-data are given in the most emphatic sense of given.

The sketch which Royce sets forth of the psychology of the process of the postulating activity of thought makes explicit the voluntarism implicit in the idea of the postulate. It is quite unnecessary to recall its details to you. The preface of the book makes an acknowledgement to Professor James, and the address of 1903 to which I referred at the outset expressly connects the influence of James with this voluntarism. The activity which transforms and transcends the immediate data is, psychologically, of the nature of attention; attention is essentially will, and it expresses interest.¹

A voluntaristic element, persisting all through Royce's philosophy, is seen in his treatment of a cognitive idea. An idea to be cognitive must be a part of a judgment, or itself an implicit judgment. For a judgment to be true or untrue means that it agrees or does not agree with its object—an object external to the ideas connected in the judgment. Yet the judgment must always have something which indicates what one of the many objects of the world it picks out for its own, which one it cognitively refers to. In other words, the cognitive idea is, in its objective reference, an intent. The voluntaristic implications of the cognitive idea as intent are in no way elaborated in this document as they are, for example, in *The World and The Individual*, but the root idea is present.

It is no part of this paper to follow the logic of the treatment of the possibility of error and the method which leads to the conclusion: "All reality must be present to the Unity of the Infinite Thought" (p. 433). The purpose of the paper limits me to noting, first, that we have now found the ethical desideratum—the ontological reality of an organized harmony of all aims. For being a complete *thought*, a complete knower, it must have present in it all desires and purposes, and being a *complete* or

¹ *Religious Aspect*, pp. 308–324.

perfect knower, it must also present in itself the realities in which aims find their realizations. Secondly, we note that in the formulations of this absolute knowing consciousness intellectualistic considerations predominate to a greater extent than in Mr. Royce's subsequent formulations. The Infinite Truth is conceived by predilection as Knower; it is referred to as Seer, as Spectator, as Judger. The function of infinite Thought in *knowing* our aims and *knowing* the objects in which they are fulfilled is most dwelt upon. In the treatment of the problem of evil, however, that voluntaristic aspect of the Absolute which is made so explicit in later writings appears in germ. Goodness is not mere innocence but is transcending of evil. In the divine our evil is present but is transcended in good. But such transcendence is by way of conquest. The cognitive Seer possesses also a Universal Will realized in it.¹

It is not my intention to engage in criticism of either the conclusion or the method followed in reaching it. I shall, however, indulge in a few comments which may suggest the direction which my criticism would take if occasion and time permitted. In the first place, I would point out that all solutions are relative because relevant to the problem from which they set out. In the last analysis, everything depends upon the way in which the problem is formed and formulated. With Mr. Royce the problem is fixed by the results of the Kantian philosophy, taken in its broad sense. It seems axiomatic to him that the problem of knowledge is the problem of connection of sense data which are facts of consciousness with the spontaneous constructive activity of thought or judging—itself a fact of consciousness.² It is significant that his discussion of the possibility of error sets out with a provisional acceptance of Ueberweg's definition of judgment as "Consciousness about the objective validity of a subjective *union of ideas*" (italics mine).

¹ *Religious Aspect*, pp. 456-59.

² In the first published writing of Mr. Royce with which I happen to be familiar, entitled, "Schiller's Ethical Studies" in the *Journal of Speculative Philosophy*, Vol. XV, p. 385, the peculiarity of Kant is stated as follows: "Kant's philosophy is a glorification not of self but of Consciousness. In Consciousness is all knowledge rooted, through Consciousness is all truth known," etc.

My second line of comment may be introduced by reference to the fact that I have spoken of the voluntarism of Royce, not of his pragmatism. I have done so in part because pragmatism (while it may be construed in terms of facts of consciousness, and so be identified with a psychological voluntarism) may be stated in non-psychical terms. But in greater part it is because the original statement of Royce, the one where a critical voluntarism still lords it over an ontological Absolutism, conceives will purely as Act. It is the *act* of Acknowledging which is emphasized. There is no reference to determination or measure by consequences. Now Peirce repudiated just such a position. He says, referring to Kant, that this type of position would be Practicalism, and that he adopted the word Pragmatism, still following a Kantian suggestion, to emphasize empirical consequences. The importance attached by James to consequences, last things, as a test of pragmatism, is well known.

Voluntarism rather than pragmatism is found in the Roycean notion of judgment. When intent or purpose is conceived of as the essence of judgment or cognitive idea, the intent is to know. The reference is intellectualistic; connection with the object intended is cognitive, not practical. As "attention constantly tends to make our consciousness more definite and less complex" (p. 316), so of the process of thought knowing, it is said: "The aim of the whole process is to reach as complete and united a conception of reality as is possible, a conception wherein the greatest fullness of data shall be combined with the greatest simplicity of conception" (p. 357). Construing the operation of fulfilling a supreme cognitive interest in terms of purpose and will is a very different thing from construing the cognitive interest in terms of a process of fulfilment of *other* interests, vital, social, ethical, esthetic, technological, etc.

Finally, just because consequences and the plurality of non-intellectual interests which cognition serves are ignored, the ethical voluntarism of the essay of 1881 is itself an absolutism—ethical to be sure, but absolutism. The acknowledging activity must finally be justified by "the significance—*i. e.*, the moral worth—of this activity itself." It would be hard to find

anything less congenial to the ethical side of pragmatism than a doctrine which justified moral purpose and motive by something residing in its own activity, instead of in the consequences which the activity succeeds in making out of original vital and social interests in their interaction with objects. Putting the matter somewhat more technically, the transition from the voluntarism of the early essay to the intellectual absolutism of the later book was indeed logically necessary. A will which is absolute is purely arbitrary, and its arbitrariness leads to scepticism and pessimism for the reasons pointed out by Royce. 'Will' needs a rational measure of choice, of preference, in the selection and disposition of ends. If it does not find this measure in a coordinated foresight of the consequences which depends upon acting from a given intent, it must find it in some *pre-existing* Reality, which, of course, is something to be known. In short, what the transition from the voluntarism of the earlier essay to the intellectualism of the later exhibits, is not a change from pragmatism to absolutism but a recognition of the objective absolutism latent in any ethical absolutism. I would go as far as to suggest that the ulterior issue involved in the theory of knowledge is whether regulative principles have a prospective and eventual reference, or whether they depend upon something antecedently given as an object of certitude—be it fixed ready-made goods, fixed ready-made rules, or fixed Absolute.

JOHN DEWEY.

COLUMBIA UNIVERSITY,

NOVUM ITINERARIUM MENTIS IN DEUM.

IT seems to be the fashion nowadays in Germany, both in philosophical and in military circles, to connect the war, or at least Germany's part therein, with the teachings of the great German idealists. It is not at all strange that this should be so. Whenever any nation is at war and patriotism rises to a high pitch, there is always a marked deepening of religious sentiment,—it is as much so in France today as in Germany,—and one fondly tries to tie up one's cause to the teaching of the great spiritual leaders of the past. "Our cause is the righteous cause, and the God of battles is with us." Thus it ever was, and ever will be, no matter what one's philosophy, for the nation that does not do this will engage in war listlessly and surely perish. To be sure, outside of Germany one finds a greater hospitality toward the spiritual leaders of other nations than one's own. The Germans have come to view themselves as in some peculiar sense the chosen people. God has spoken to them as to no other race, and they are convinced that they have a special mission and duty as the representatives of the fundamental ideas of civilization.

It is not strange that the Germans should invoke the imposing figures of Kant and Fichte. But one is indeed surprised to find thinkers of our own land making these idealists responsible, not only for Germany's part in the war, but even for the whole policy of 'frightfulness,' and seriously warning us that if we would be politically saved, we must once for all turn our backs on Kant with his antiquated belief in truth, in eternal principles of right, and in a spiritual realm distinct from the realm of nature—and be baptized in the flowing stream of pragmatism. It is true that in Fichte's writings, from the first, the concepts of God and the ego have a tantalizing way of running together; and, after the battle of Jena, the resulting exalted personality was thoroughly Teutonized. It is true that Hegel was a trimmer, and that he accommodated his philosophy so as to make it find its fulfilment

in the Prussian state, and that he Hegelized Christianity to give it religious sanction. But these are the weaknesses of great men, illustrations, perhaps, of the chief weakness of a great race. This is insolent egotism, not philosophy at all. But surely chauvinism was not invented in Germany, any more than jingoism was born in France. It is a temper of mind that is independent of race, and not limited to men of any philosophical persuasion. It is just a common human failing.

If any philosophy were to be singled out as on trial in this war, it would rather seem to be a ruthless materialism, which had found expression in *Realpolitik*, and adopted an elastic pragmatic interpretation of the true and the good. But as a matter of fact, we cannot settle our philosophical differences in any such simple fashion, or decide for or against any political philosophy by pointing to Germany as the *abschreckendes Beispiel*, either of idealism, or of pragmatism, or of realism, or of any other philosophy. To attempt to do so would merely result in calling each other names.

One thing is evident. The European conflict has brought each of the nations engaged therein to a collective self-consciousness unrealized before. There are indications of a similar awakening in our own land, and it is incumbent upon us to try to discover the political philosophy, if any such there be, that underlies our efforts after democracy. Is the older absolute idealism a menace to the establishment of free institutions, and to the peace of nations? The gravamen of the charge seems to be this:—The idealist, believing in absolute truth, and in immutable principles of morality, and in a spiritual realm which is not to be comprehended under the categories of the physical order, will come sooner or later to regard himself and those of his intellectual household as the sole guardians of this truth, the only true interpreters of this moral law, and as, therefore, justified in employing any means that may seem expedient in making their view prevail. Either the idealist views himself thus as the Lord's anointed, and becomes a menace to mankind, or else he doesn't take his idealism seriously and it becomes a milk-and-watery and negligible doctrine.

There could hardly be a more complete misrepresentation of the situation. It can only be given the slightest semblance of plausibility by rehearsing the chauvinistic and egotistical utterances of a few idealists, whose chauvinism was not only not the consequence of their idealism, but was in fact in direct contradiction to it. It is, on the contrary, a matter of plain history that genuine intellectual modesty among philosophers, and a broad and tolerant humanism, and an eagerness to learn from experience, first made their appearance with the dawn of absolute idealism. These are virtues she cannot be robbed of, even if at times some over-zealous devotees have betrayed her cause.

In one of Plato's Dialogues, Socrates tells the story of his own intellectual awakening, and it is most instructive with regard to the question at issue. He learned one day that a man named Anaxagoras had written a book in which he had shown that mind was the author of all things. "Eagerly," said Socrates in effect, "I sought the book, but imagine my disappointment when I found that, although asserting mind to be the author, the writer went on to explain the facts of experience without using that concept at all. If mind be indeed the author, then everything is as it is because it is best for it so to be, and the only true wisdom would consist in seeing all things in the light of this idea of the good." He himself, however, was equally unable to attain unto this wisdom. Nevertheless, he gets from Anaxagoras an inspiration that defines a program, the program of absolute idealism, and sets a task which ages will be required to carry out. For he has a second string to his bow; he cannot, of course, take his stand with absolute wisdom; that would be indeed to affect omniscience. He must begin in all modesty just where he finds himself, with what seems most plausible and then proceed to test this view by clear, consistent, and thorough-going thinking, brought ever to the touchstone of experience. In this undertaking he finds that he can successfully eliminate error, and substitute once for all the more complete for the less complete vision. The modesty of this position is obvious. Of what value then to this idealist was the conception of an absolute reason so inaccessible to mortal mind? It inspired and justified

an absolute and self-sacrificing devotion to the pursuit of truth; gave his mission, as he viewed it, the sanction of a Divine command; justified the belief that clear, straight thinking done by any man is done for all men; that men are brought together in the search for truth and freed through its discovery, because in mind they have a truly common nature. Socrates was never dogmatic. His life is a continuous experimental test of this position, an attempt, as we might say, to blaze the trail for the *itinerarium mentis in Deum*. The function of this concept of absolute reason has been, from Socrates's day to this, analogous to that of the conservation of energy in modern physics, and it was as revolutionary and as fruitful in philosophy as the latter concept was in physics.

But there is something of the mystic in Socrates, and this vision of completed truth toward which he is striving is even now there before him, and within, as the object of his continual longing, an object as beautiful and good as it is true. Plato, or is it still Socrates, under the inspiration of this vision, tries to depict a social order in which this ideal shall be realized among men. If he makes the mistake which most reformers make of trying to make vice impossible through legislation, and of trying by means of institutions to bring about the millenium day after tomorrow, a mistake that leads him into the errors of premature socialism, he has none the less grasped certain principles that must still serve as our ideal. The only real state, the only one worthy the name, is one in which every individual may find the opportunity to do that which he is best fitted to do, and in which this service shall always be performed with an eye to the welfare of the entire community. The root of evil in states as in individuals is selfishness, the desire for self-aggrandizement, the desire to get on at the expense of someone else. These are truths of political philosophy which we must still recognize, although nowhere have they been brought to realization. And yet they remain, as all universal truths do, formal. Whether any specific reform will help to bring about the desired result we can only tell by trying. But this ideal still sets for us the end with reference to which we pass judgment upon our several experiments.

With the work of the seraphic doctor, whose title I have borrowed, I am not especially concerned. Despairing of the state of the world as he found it, Bonaventura sought salvation for the individual by the pathway of withdrawal, and this gives his work, for all its beauty, a certain unreality. But it is worth noting that, in spite of his ambitious undertaking, this idealist suffers if anything from an excess of modesty; that moreover his book is an interpretation of his own experience, an account of the spiritual gymnastics whereby he had, as he supposed, himself reached the peace that passed understanding; and that the last thing that could have occurred to him would have been to attempt to force his view on any unwilling mind.

The modern idealist, and Professor Royce is my representative modern idealist, views, and must view, his life work as nothing less than an attempt to find and describe the *itinerarium mentis in Deum*. And yet no one, at least in his rôle as idealist, ever supposes that in so doing he is giving to the world the only reliable Baedeker to the kingdom of heaven. The very magnitude of his aim insures his modesty. His philosophy itself compels him to regard every serious student as a collaborator in his undertaking, and to view the task which he has set himself as one which the ages alone can carry to completion. Nevertheless, he believes that he does possess even now a sure compass to guide him in his quest, certain fixed principles of thought and action, call them categories or imperatives if you will, which are such as are implied in the very effort to deny them, and are, therefore, the pre-conditions of all our interpretations. He believes, moreover, and for reasons that do not here concern us, that this complete vision, which is the goal of his endeavor, is no mere distant ideal but rather an ever-living force, the life and the light of the world today. He has read his Socrates through the eyes of Kant, and in the spirit of Bonaventura.

Amongst the many contributions which Professor Royce has made to philosophy, there are three or four that stand out in special relief. The earlier idealists, intoxicated by their success, and ignoring the limitations imposed by their own vision, had dealt rather cavalierly with experience. Professor Royce has

done excellent service in making it plain that idealism not only permits, but compels, respect for the facts precisely as experience reveals them; counsels docility in interpreting nature, and adopts the experimental attitude toward all specific plans and institutions. The absolute is not to be found all at once, and the philosopher, not talking to the klepsydra, as Plato would say, but having his eye on all time and all existence, can afford to be patient, and will surely be suspicious of all Utopias.

He has also succeeded in cutting under the old Cartesian dualism of mind and matter, a dualism which has haunted all modern philosophy, and is still the fertile source of many of our misunderstandings. Mind is not all here within, objects yonder without; the unity of consciousness comes into being *pari passu* with the knowledge of the unity of experience; the interpreter is at once on the object as well as on the subject side of the subject-object relation. The object that one seeks is defined and selected in the idea that reaches out after it, and is indeed simply its more complete and individual embodiment.

Again, by showing the universal presence of the practical in the theoretical, he has helped to bridge the Kantian gulf between these two realms, and to establish the thoroughgoing primacy of the practical,—a pragmatism raised to the *n*th power.

But I find a new note appearing in the *Philosophy of Loyalty*, and prominent in all his subsequent writings. Here again our idealist is simply interpreting experience; his feet are on the ground of fact. But the center of interest is now our varied human life with all its tragedies, its hopes, its failures, its joys, as it has been lived by a very human and lovable person, as good as he is wise. In these works Professor Royce has bridged the gap which, in our fondness for abstractions, we are apt to set up between individuals. He has shown that the isolated individual does not exist; that we do not take our point of departure, as it were, in the prison of the inner life, and then argue ourselves into the belief in other minds on the basis of analogy, finding the behavior of their bodies like that of our own, and inferring the presence of a corresponding consciousness. The notion of a self-contained mind coming to believe in the existence

of other minds in such a fashion is a pure abstraction. We cannot even state the argument from analogy without pre-supposing as its own terms a consciousness that takes us beyond the limits of our private personality. Our consciousness is, in truth, from the first, social, and one rounds to a separate mind only by defining his own interests and purposes within the unity of the mind of the community.

The pursuit of truth is always a social enterprise where at least three minds are involved, one mind interpreting a second to another, or to other, minds. And the real world we seek is no other than the community of interpretation which can be found by no one except the spirit of the community dwell within him. This idea of the community, and of the divine spirit as dwelling therein, is no mere abstraction, no metaphor, no topic for mystical insight. Any highly organized community is "as truly a human being as we are individually human, only a community is not what we usually call a human being; because it has no one separate and internally well-knit organism of its own; and because its mind, if you attribute to it any one mind, is, therefore, not manifested through the expressive movements of such a separate human organism." Nevertheless, its mental life possesses a psychology of its own which can be systematically studied. It is, moreover, one through the possession of a common fund of memories and experiences. "As empirical facts, communities are known to us by their deeds, by their workings, by their intelligent and coherent behavior; just as the minds of our individual neighbors are known to us through their expressions." The difference between individual human beings as we ordinarily regard them in social intercourse, and communities, is properly characterized by describing them as two grades or levels of human life.

Thus our *itinerarium mentis in Deum* has led us to a concept of God as the spirit dwelling in the beloved community, a concept which in no wise resembles that spectre which the philosophical caricaturist delights in portraying, the otiose absolute of the schools. It is a God who makes a difference in the lives of men, inspiring them to loyalty, devotion, and self-sacrifice. And

from start to finish, our idealism has been in close contact with the facts of experience. If these find their interpretation in this idealism, they are not in any sense transmuted into something else. They remain with their value fixed unalterably, each in its own place in the temporal order, although their meaning, if ever it could be completely found, would involve their exhaustive interpretation in the light of the entire historical process, and in the full contexture of human intercourse.

And if all of our interpretations of experience are guided by the practical motive, we have here found the supreme practical principle in the call to be loyal to the principle of loyalty, for except through the acceptance of this principle, neither individual nor community could be; that is, to deny it is to deny life and reality.

I submit that if this view is true, the next task for idealists should be to reverse our telescopes, and, starting from this practical imperative, show how the principles and categories, by means of which we interpret experience on its various levels, issue from it, and are related to each other with reference to it. This would be to give a genuine deduction of the categories and to establish the primacy of the practical reason.

And have we not in this idealism a philosophy which helps us to define our own political aspirations, and to make articulate the vision that underlies our efforts after democracy? Most of the high sounding phrases that roll so glibly from the tongue of the Fourth of July orator are merely more or less flamboyant expressions of an aspiration common to all civilized lands today. Every land aspires to be a land of the free, and no one has come anywhere near realizing this aspiration. In our efforts in this direction we have been particularly favored by our geographical situation, and by our unsurpassed physical resources. But most of all are we favored in the varied assortment of our ancestors. We are indeed, as a nation, directly descended from England, and her institutions, and laws, and political beliefs, have been the most potent influence in making us what we are; and the very language that we speak must make her history, her literature, and her ideals ever specially dear to our hearts. At the same

time, the collateral branches of our ancestry reach back into almost every civilization. We are thus in a position to claim the living past of them all as our own past without being bound by the dead past of any one. We are, therefore, less in bondage to the past than other nations not so favored; less hampered by the claims of use and wont.

Great as are these advantages, they are very far from insuring the success of our political experiment, and there are many signs of coming storm. We are apt to speak and act as if freedom were a negative term, as if it meant freedom *from*, instead of freedom *to*. And so there is a great deal of mutual complacency, of easy-going live and let live, and a spineless tolerance of wrong that does not directly and obviously touch us as individuals. We are an irreverent and a pleasure loving people, devoted to luxury and ease. Hence the universal desire for self-aggrandizement, the mad scramble for wealth, selfishness on a scale unparalleled in history, a selfishness that is not overcome by occasional spasms of sentimental kindness. Hence, too, the tendency to seek reform by substituting the selfishness of the group, the class, or the majority, for that of the individual. Everyone thinks himself as good as his neighbor. There is an unwillingness to use the expert, and civil service reform makes headway with painful slowness. For "every human unit must count for one, and no one for more than one." So runs the shibboleth.

Does it not all come down to this, that the concrete ills which threaten us, spring from the fact that men have lost their belief in Truth, in eternal principles of morality, and in a spiritual order that transcends, even if it includes, the world of sense. If our democracy is to triumph we must find some way of combining service with freedom, the unity of the community with the independence of the individual. Were this consummation reached, we could then say every human unit counts for all, in counting for himself, for he only counts for himself if the spirit of the community dwell within him.

This ideal, like every worthy human ideal, calls for perfection, and, therefore, sets a task which ages alone can bring to realiza-

tion. Nevertheless, it defines our aim, and supplies the standard by which we may measure the value of the means employed, [our various experiments in righteousness, individual and social] and make sure of our progress toward its realization. It places clearly before us the vision of that state, at once ideal and real, where solidarity and liberty have joined hands, and where the familiar maxim 'One for all and all for one' is more than an empty phrase.

This is indeed not a new social philosophy, but Professor Royce has given it a novel interpretation, and has shown how completely it controls the work of theoretical reason on all its levels. The ideal state which it places before us has many of the marks of socialism, but it is a socialism that will be desirable only when it is no longer necessary. For any attempt to hasten the realization of this ideal by external means, by force, or by the mechanism of institutions, would only make sure its defeat. This is a *Kultur* which can only be spread by the sword of the spirit.

CHARLES M. BAKEWELL.

YALE UNIVERSITY.

THE TELEOLOGY OF INORGANIC NATURE.¹

THE study of adaptation, of which Lamarck is the great originator, has not yet won for itself a secure scientific foundation nor led to clear and unequivocal interpretations of nature. Although the facts which this study presents are both universal and important, biologists have neither agreed upon their place in the theory of evolution nor discovered any principle by which they may be even unified.

This failure of our modern science is not hard to understand, and may fairly be attributed, in part at least, to the lack of a systematic study of adaptability, which at bottom is a physical and chemical problem, uncomplicated by the riddle of life. For beneath all the organic structures and functions are the molecules and their activities. These it is which have been moulded by the process of evolution, and these no less have formed the environment.

I beg the reader to bear this in mind and constantly to remember one simple question: What are the physical and chemical origins of diversity among inorganic and organic things, and how shall the adaptability of matter and energy be described? He may then find his way through the difficulties which philosophical and biological thought have accumulated around a problem that in its most fundamental aspects belongs only to physical science.

The scientific examination of the properties and activities of the three elements hydrogen, carbon, and oxygen and of their compounds water and carbonic acid, as it was recently presented in *The Fitness of the Environment*,² may serve as an aid to investigate the problem of adaptability. For it is evident that diversity in nature must especially depend upon the existence and availability of suitable structural materials in the necessary

¹ The argument which is presented in the following pages has benefited at every stage of its development by Professor Royce's criticisms and by successive discussions in his Seminary of Logic. I dedicate it to him with pleasure and gratitude.

² New York, The Macmillan Co., 1913.

profusion, variety and stability; on the existence of conditions which shall preserve the structures; on wealth of forces which shall activate them. Such specifications, like those of an architect or engineer, concern the properties of matter and energy rather than the laws of nature.

The properties of the three elements meet most of these specifications. They lead to the presence of water and carbon dioxide in the atmosphere, and to the meteorological cycle. This cycle regulates the temperature of the globe more perfectly than it could be regulated by any other substance. It produces an almost constant temperature in the ocean, as well as constancy of composition and of alkalinity. It mobilizes all over the earth great quantities of all the elements; it deposits them in great variety and inexhaustible profusion in the ocean; it comminutes and disperses all varieties of insoluble minerals, thereby diversifying the land; it causes water to penetrate and to remain in nearly all localities. And all of these processes are more perfect or more extensive than they could be if a large number of the different properties of water were not what they are. Thereby the greatest possible variety and quantity of structural materials are accumulated. Meanwhile the conditions which make for durability of structures are insured.

Other similar results depend upon the chemical properties of the three elements. These properties lead to an even greater variety of chemical combinations and chemical reactions, to an unequalled diversity of properties in their products, and to qualitatively and quantitatively important transformations of energy.

Out of all these substances, inorganic and organic alike, the properties of water and of other substances here in question make possible the construction of an almost infinite diversity of physico-chemical systems. And, as Willard Gibbs has shown, the world of physical science is made up of systems and nothing else. Natural systems may vary almost indefinitely in the number and variety of their phases and components, in concentrations, and in configurations. They may be so constituted as to produce the most varied forms of activity. Like their components, they may manifest the greatest variety of

properties and their forms include all the possible forms of life and of the mineral kingdom.

These and many other things depend upon the properties of hydrogen, carbon, and oxygen. They make up, I cannot doubt, the most remarkable group of causes of the teleological appearance of nature. Yet it must not be forgotten that they only coöperate in the process of evolution, and that many other causes are just as necessary to the results. Not only are the laws of nature concerned, but also the characteristics of the solar system, many special features of the earth itself, and especially the origin of life. Without this mysterious event the process of evolution must have remained in a far simpler condition. But more conspicuously than the other factors in the evolutionary process these fundamental properties of matter permit in a very strict scientific sense freedom of development. This freedom is, figuratively speaking, merely the freedom of 'trial and error.' It makes possible the occurrence of a great variety of trials and of a large proportion of successes. I need hardly say that we arrive at the conception of this kind of freedom only by neglecting the causes which determine the trials—in this case the general laws, the rotation of the earth, the distance of the sun, and many others. But this is equivalent to the remark that we are investigating one particular aspect of a complex problem, meanwhile following the invariable method of science.

The nature of the properties of the three elements which thus coöperate to bring these conditions to pass must now be examined. All properties, with the exception of a few which cannot at present be recognized as bearing upon the general characteristics of systems, are concerned. Each of these properties is almost or quite unique, either because it has a maximum or a minimum value or nearly so, among all known substances, or because it involves a unique relationship or an anomaly. No other element or group of elements possesses properties which on any account can be compared with these. All are deficient at many points, both qualitatively and quantitatively. And since the whole analysis is founded upon the characteristics of systems, and therefore upon concepts which specify nothing about the proper-

ties of the different kinds of matter, it is unnecessary to examine the possibility of the existence of other groups of properties otherwise unique.

Thus we reach the conclusion that the properties of hydrogen, carbon, and oxygen make up a unique ensemble of properties, each one of which is itself unique. This ensemble of properties is of the highest importance in the evolutionary process, for it is that which makes diversity possible; and diversity, as Spencer declares, is radically necessary to evolution. In short, there is here involved an order in the properties of the elements.

This new order is, so to speak, hidden, when one considers the properties of matter abstractly and statically. It becomes evident only when time is taken into consideration. It has a dynamical significance, and relates to evolution. It is associated with the periodic system of the elements in somewhat the same way that the functional order is related to the structural order in biology. Hence it is not independent of the other order, but may be said to lie masked within it.

This is no novel experience, that the consideration of phenomena in time should lead to new points of view. From Galileo's inclined plane and pendulum to the times of Darwin and modern physical chemistry, the progress of dynamics has steadily modified our outlook on nature. In truth, it might almost have been said *a priori* that a new order must be revealed by a study of the properties of matter in relation to evolution.

This order may be described abstractly as follows: The properties of matter are not evenly distributed among the elements, nor in such manner as can be explained by the laws of chance, nor are they altogether distributed in the manner which the periodic system describes. If the extremes be considered, all the physical and chemical properties are distributed with the very greatest unevenness, so that the extremes are concentrated upon a few elements, notably hydrogen, oxygen, and carbon. As a result of this fact there arise certain peculiarities of the cosmic process which could not otherwise occur.

The characteristics which make up this unique ensemble include the greater number of characteristics, and especially the

most important and the most conspicuous physical and chemical properties. This order has for cosmic and organic evolution extremely important results—maximum stability of physico-chemical conditions and maximum complexity in the physico-chemical make-up of the surface of our planet; further, the possibility of maximum number, variety, complexity, durability and activity of physico-chemical systems in such an environment.

The unique ensemble of properties of water, carbonic acid and the three elements constitutes among the properties of matter the fittest ensemble of characteristics for durable mechanism. No other environment, that is to say no environment other than the surface of a planet upon which water and carbonic acid are the primary constituents, could so highly favor the widest range of durability and activity in the widest range of material systems—in systems varying with respect to phases, to components, and to concentrations. This environment is indeed the *fittest*. It has a claim to the use of the superlative based upon quantitative measurement and exhaustive treatment, which is altogether lacking in the case of the fitness of the organism. For the organism, so we fondly hope, is ever becoming more fit, and the law of evolution is the survival of the fitter.

Yet it is only for mechanism in general, and not for any special form of mechanism, whether life as we know it, or a steam engine, that this environment is fittest. The ocean, for example, fits mechanism in general; and, if you will, it fits the whale and the plankton diatom, though not man or a butterfly. But, of course, as everybody has known since 1859, it is really the whale and the diatom which fit the ocean. And this leads to a biological conclusion.

Just because life must manifest itself in and through mechanism, just because, being in this world, it must inhabit a more or less durable, more or less active physico-chemical system of more or less complexity in its phases, components and concentrations, it is conditioned. The inorganic, such as it is, imposes certain conditions upon the organic. Accordingly, we may say that the special characteristics of the inorganic are the fittest for those general characteristics of the organic which the general character-

istics of the inorganic impose upon the organic. This is the one side of reciprocal biological fitness. The other side may be similarly stated: Through adaptation the special characteristics of the organic come to fit the special characteristics of a particular environment, to fit, not any planet, but a little corner of the earth.

This is a most imperfect characterization of the dynamic order in the properties of the elements, for it involves only three among more than eighty substances. More serious, perhaps, is the difficulty of reducing the statement to a methodical form. It will be well, therefore, to take it as it stands. But the ensemble of characteristics of the three elements cannot therefore be dismissed. We have to note that the connection of the properties of these elements is not to be disregarded on the ground that it is an affair of the reflective judgment, for that consideration would also lead to the rejection of the connection of properties revealed in the periodic classification of the elements. Nor can we look upon it as in any sense the work of chance.

"There is, in fact, exceedingly little ground for hope that any single explanation of these coincidences can arise from current hypotheses and laws. But if to the coincidence of the unique properties of water we add that of the chemical properties of the three elements, a problem results under which the science of today must surely break down. If these taken as a whole are ever to be understood, it will be in the future, when research has penetrated far deeper into the riddle of the properties of matter. Nevertheless an explanation cognate with known laws is conceivable, and in the light of experience it would be folly to think it impossible or even improbable."¹

Yet such an explanation, once attained, could little avail. For a further and more difficult problem remains. How does it come about that each and all of these many unique properties should be favorable to the process of evolution? Existing knowledge provides no clue to an answer of this question. For there seems to be here no possibility of any interaction like that involved in the production of dynamic equilibrium or in natural selection. And yet the connection between the properties of the three elements,

¹ *The Fitness of the Environment*, pp. 277, 278.

almost infinitely improbable as the result of chance, can be regarded, is in truth only fully intelligible even when mechanistically explained, as a preparation for the evolutionary process. This ensemble is the condition of the production of many systems from few, and any other sensibly different distribution of the properties among the elements, almost infinitely numerous though such conceivable distributions may be, would very greatly restrict the possibilities of the multiplication of systems. In other words, the possibility is negligible that conditions equally favorable to the production of diversity in the course of evolution should arise without cause. But we are ignorant of the existence of any cause except the mind which can thus produce results that are fully intelligible only in their relation to later events. Nevertheless we can on no account, unless we are to abandon that principle of probability which is the basis of every scientific induction, deny this connection between the properties of matter and the diversity of evolution. For the connection is fully obvious and the result is reached by a scientific demonstration.

This conclusion is so important that I will try to state the argument in its simplest form. The process of evolution consists in the increase of diversity of systems and their activities, in the multiplication of physical occurrences, or briefly in the production of much from little. Other things being equal, there is maximum freedom for such evolution on account of a certain unique arrangement of unique properties of matter. A change in any one of these properties would greatly diminish the freedom. The chance that this unique ensemble of properties should occur by accident is almost infinitely small. The chance that each of the unit properties of this arrangement by itself and in coöperation with the others should accidentally contribute to this freedom a maximum increment is also almost infinitely small. Therefore there is a causal connection between the properties of the elements and the freedom of evolution. But the properties of the universal elements antedate or are logically prior to those restricted aspects of evolution with which we are concerned. Hence we are obliged to regard the properties as in some intelligible sense a preparation for the process of planetary evolution.

For we cannot imagine an interaction between the properties of hydrogen, carbon and oxygen and any process of planetary evolution or any similar process by which the properties of the elements should have been modified throughout the universe. Therefore the properties of the elements must for the present be regarded as possessing a teleological character.

It will perhaps be objected to this argument that the cause of the peculiar properties of the three elements is conceivably a simple one, such as the properties of the electron. This is perfectly true but quite beside the point. For, whether simple or complex in origin, the teleological connection—the logical relation of the properties of the three elements to the characteristics of systems—is complex. This complex connection is almost infinitely improbable as a chance occurrence. But the properties of electrons do not produce logical connections of this kind any more than they produce the logical connections of the multiplication table. Only adaptation is known to produce such results.

This is the one positive scientific conclusion which I have to contribute to the teleological problem. It must not be forgotten that it concerns but a single characteristic of the teleological appearance of nature. The question of the interplay of nature's laws is left just where we found it. And the accidental advantages which our earth possesses when compared with the other planets of the solar system, or with planets as they may be abstractly conceived are not even touched upon. Yet some of the very most remarkable conditions which lead to the diversification of the products of evolution are here involved. We have, however, to bear in mind certain of the general characteristics of all planets as they tend to appear through the influence of the properties of matter. And if the analysis has not been carried to a further stage, it is because we can see the possibility of almost infinite diversity in the properties of particular planets, while the universe seems to possess but a single system of chemical elements.

The result of our analysis is therefore nothing but an example or specimen of the scientific analysis of the order of nature. In

that it is scientific it possesses two characteristics which are important to note. First it leaves the chain of mechanical determination completely unmodified. We need take no account whatever of such logical relations of things, just as we may disregard the logical relations of the periodic system, in studying any of the phenomena or groups of phenomena in nature. Secondly, like all scientific conclusions, its validity depends upon the principle of probability.¹

The scientific value of this induction of the dynamic order in the properties of the elements must depend upon its utility as a means to the comprehension of diversity and stability in the products of evolution. But there is a further philosophical aspect of the conclusion which cannot be altogether disregarded.

In arriving at the scientific conclusion we have reached a position from which one aspect of the teleological configuration of nature can be clearly perceived and closely scrutinized. It is now evident that the diversity of the world largely depends upon a specific group of characteristics of the elements.

In order to describe the course of all natural phenomena as they have actually occurred, it is, however, quite unnecessary to understand or to take account of the peculiar relations which we have discovered to exist between these properties and the characteristics of systems. But, indeed, if we are merely to describe phenomena as they occur, it is not even necessary to take account of the law of gravitation. When, however, the more interesting task of explaining, or if this term be unacceptable, of generalizing the description, is seriously taken up, the employment of laws, which depend upon our perceptions or judgments of the relations between things, becomes necessary. The development of modern science has provided us with a considerable number of such laws, of which the most conspicuous besides Newton's law are the law of the conservation of mass, the law of the conservation of energy and the law of the degradation of energy. Such laws enable us to imagine the conditions under which all phenomena may be assumed to take place, in this manner to classify events which are

¹ Cf. Newton's fourth rule of reasoning in philosophy, in which the element of probability in every induction is clearly suggested.

widely separated in time and space, and thus gradually to approach more nearly to a conception of the world in which the infinite diversity of phenomena gives place to a very large number of possible phenomena. In establishing such a classification Newton's law and certain others have been of inestimable service; not so the most general laws like those of conservation and the second law of thermodynamics. These are too general to be always of value for this purpose, in that they are conditions of all phenomena. They have therefore often been of little use in this respect, except through their influence to make scientific thought more exact and more successfully analytical.

Another function of scientific laws has been to bring about the synthesis of the several sciences. With their help these have become highly organized bodies of knowledge which sometimes present purely mathematical exhaustiveness, rigorousness, and elegance in the treatment of problems and in some instances successful prediction of unknown facts. This is the rôle for which the general laws are best fitted. A small number of them often suffice for the systematic development of large departments of science and for the deduction of many secondary principles and large numbers of facts. Newton's *Principia* is the classical example of this process, but it is now generally admitted that for this purpose the laws of thermodynamics surpass even the fundamental postulates of Newton's mathematical analysis.

In the course of such developments it has been found necessary to employ other concepts than laws. The phenomena of nature are never simple, and rarely approach near enough to simplicity to serve as crucial experiments. The case of the solar system, as recognized and employed by Newton, is the one great example of a sufficiently isolated natural experiment. But even in the laboratory the man of science must always content himself with an imperfect elimination of disturbing factors. As a result of this difficulty the purely abstract ideas of line, mass, system, and many others have found their place in scientific thought. Thus all abstract scientific thought moves in an ideal world which never corresponds exactly with reality, but which may be made to approximate to reality within any desired limits. Such are

the more important functions of the abstract principles and concepts of science which here concern us.

It has been indicated above how the concept of system may be employed in the methodical description of the general characteristics of evolution. And the one existing systematic attempt to give a full description of this process, as it appears in Spencer's *Synthetic Philosophy*, is guided by a vague and inaccurate anticipation of this idea. Moreover, we can now see that a recognition of the peculiarities of hydrogen, carbon, and oxygen is a necessary further means to the explanation of the process. For these peculiarities are a significant condition of every stage, and without them the most general characteristics of nature could never have arisen. This generalization is therefore a typical instrument of scientific thought, in that it facilitates abstract discriminations and descriptions, and helps to make possible a generalized conception of the process as a whole.

The consideration of such well-known principles of the philosophy of science would be quite out of place were it not for the teleological implications of the conclusion. The peculiarities of the elements appear to be original characteristics of the universe, or if not they at least appear to arise invariably and universally when conditions make possible the stability of the atoms. Nothing is more certain than that the properties of hydrogen, carbon, and oxygen are changeless throughout time and space. It is conceivable that the atoms may be formed and that they may decay. But while they exist they are uniform, or at least they possess perfect statistical uniformity which leads to absolute constancy of all their sensible characteristics, that is to say of all the properties with which we are concerned. And yet this original characteristic of things is the principle cause of diversity in that stage of the evolutionary process which is fully within the grasp of natural science.

But it may be objected that in the strict scientific sense this is not a relation of cause and effect at all. For we are concerned with an indefinite number of chains of causation in each of which the preceding condition is at every point the cause of the succeeding condition.

Like Newton's law, or any other principle of science, great or small, the peculiarities of the three elements are, of course, the cause of nothing. They are merely the conditions under which the phenomena reveal themselves. And the world is now what it is because it was something else just a moment ago. There can be no objection to this position. But if we are therefore required to close our inquiry at this stage, the reply must be made that we shall then be obliged to exclude all the laws of science from our philosophy.

And so we may return to the conclusion that the principal peculiarity of the universe which makes diversity of evolution possible is original and anterior to all instances of the processes which it conditions. And we may recall the fact that this peculiarity consists of a group of characteristics such that they cannot be regarded as accidental. Finally, it will be remembered that the relations of this group of properties to the characteristics of systems are also such that they cannot be thought accidental. I believe that these statements are scientific facts. If this be so, we have arrived at the solution for a special case of Aristotle's problem of "the character of the material nature whose necessary results have been made available by rational nature for a final cause."¹

Of course, objections will at once arise to the terms 'rational nature' and 'final cause.' In reply I have little to say, for I believe that Aristotle has justified his use, in his own day, of these terms. In the first place, I conceive that the term 'rational nature' of the fourth century may be translated into the modern term 'laws of nature.' For these laws are exclusively rational; they are the product of the human reason, and are not conceived by science to have objective existence in nature. This is also clearly true of the relation between the properties of the elements and the course of evolution. Secondly, as we have seen above, all phenomena are phenomena of systems. Hence the operations of a final cause, if such there be, can only occur through the evolution of systems. And therefore the greatest possible freedom for the evolution of systems involves the greatest possible freedom for the operation of a final cause.

¹ *De partibus animalium*, 663^b, 20.

The above statement may now be modified to the following effect: We possess a solution for a special case of the problem of the characteristics of the material nature whose necessary results have been made available by the laws of nature for any hypothetical final cause. Thus the whole problem of the teleological significance of our scientific conclusions reduces to the simple but infinitely difficult question whether a final cause is to be postulated.

Here we are once more confronted by the fact that no mechanical cause of the properties of the elements except an antecedent process is conceivable. And since the elements are uniform throughout space, there cannot have been, in the proper sense, any contingency about the operation of this cause. At the most, contingency can have only produced an irregular distribution of the different elements in different stars. But according to the orthodox scientific view there is no room for contingency in such discussions. Accordingly, the properties of the elements are to be regarded as fully determined and perfectly changeless in time. This we may take as a postulate. But the abstract characteristics of systems are no less fully determined and absolutely changeless in time. This is a second postulate.

Finally the *relation* between the numerous properties of hydrogen, carbon, and oxygen, severally and in coöperation, and the necessary conditions of existence of systems in respect of number, diversity and durability, as these conditions are defined by the exact analysis of Willard Gibbs, is certainly not due to chance. In other words, the statistical probability that this connection has a cause, is greater than the statistical probability which we can ever demand or usually realize in the establishment of our laws of science. It should be remembered that we are here dealing with three elements among more than eighty, and with more than twenty properties; further that it is not merely a question of the coincidence of the unique properties among the elements, but especially of the relation of these properties to systems. The uniqueness of the properties is significant only because it proves their unique fitness for systems. Finally, if it should be proved that the properties are the result of one simple

cause, the question would become: What is the probability that from a single cause this group of unique fitnesses for a subsequent process should arise? This problem is mathematically identical with the earlier one.

No mechanical cause of the properties of the elements is, however, conceivable which should be mechanically dependent upon the characteristics of systems. For no mechanical cause whatever is conceivable of those original conditions, whatever they may be, which unequivocally determine the changeless properties of the elements and the general characteristics of systems alike. We are therefore led to the hypothesis that the properties of the three elements are somehow a preparation for the evolutionary process. Indeed this is the only explanation of the connection which is at present imaginable.

Such an hypothesis will have to be judged on its merits. Admitting the scientific facts, it possesses, so far as I can see, two defects. In the first place, the term preparation is scientifically unintelligible; secondly, this hypothesis is not only novel but it is different in kind from all other scientific hypotheses. For no other scientific hypothesis involves preparations other than those which originate in the animal mind. In short, we are face to face with the problem of design. Concerning the philosophical aspects of this question I have nothing new to say. It seems to me to be clearly established in the history of thought that when the problem arises the only safety consists in taking refuge in the vaguest possible term which can be employed. That term is teleology. I shall therefore modify the above statement and say that the connection between the properties of the three elements and the evolutionary process is teleological and non-mechanical.

Here it may be pointed out that biological organization consists in a teleological and non-mechanical *relationship* between mechanical things and processes. In both cases the relationship is rational and non-mechanical, the things related mechanical and non-rational. Or, in other words, the relation is an affair of the reflective judgment, the things related of the determinant judgment. It is the failure to understand this distinction which is

at the bottom of most misunderstandings concerning teleological problems in biology. The understanding may be facilitated by noting that the periodic classification of the elements is also a rational and non-mechanical relationship.

If it still be asked whether this conclusion has any intelligible meaning, the answer must be affirmative. For the concept of organization is now in general scientific use. How then should it be thought strange to find in the inorganic world something slightly analogous to that which is clearly recognized in the organic. Indeed, no idea is older or more common than a belief or suspicion that somehow nature itself is a great imperfect organism. There is nothing to commend such a view to natural science, but it may well have a foundation in undefined realities vaguely perceived.

We thus reach the conclusion that in one of its most important aspects the teleological appearance of nature depends upon an unquestionable relationship between the original characteristics of the universe which, because it is merely a relationship and in no sense a mechanical connection, because it is unmodified by the evolutionary process and changeless in time, is to be described as teleological. The reason why it must be described as teleological is that there is no other way to describe it. It is teleological just as the periodic system is periodic. In other words, the appearance of harmonious unity in nature, which no man can escape, depends upon a genuine harmonious unity which is proved to exist among certain of the abstract characteristics of the universe. As a qualification of such abstract characteristics, contingency, the one concept opposed to harmonious unity of nature, finds no place. Thus the teleological character of nature is recognized through a connection, conceivable only as teleological, among the abstract characteristics of nature.

It must not be forgotten that there is here involved but a single instance of a teleological connection between the laws of nature. And though we can vaguely distinguish other teleological aspects of the principles of science, as in the tendency toward dynamic equilibrium, there seems to be at present no possibility of investigating the problem in a more general manner.

Yet this single result is sufficient greatly to strengthen a philosophical position at which many thoughtful men have arrived from the most varied experiences and diverse lines of thought.

Charles Darwin has stated it as follows:

"Another source of conviction of the existence of God, connected with the reason, and not with the feelings, impresses me as having much more weight. This follows from the extreme difficulty, or rather impossibility, of conceiving the immense and wonderful universe, including man with his capacity of looking far backwards and far into futurity, as the result of blind chance or necessity. When thus reflecting I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist. This conclusion was strong in my mind about the time, as far as I can remember, when I wrote 'The Origin of Species,' and it is since that time that it has very gradually, with many fluctuations, become weaker. But then arises the doubt, can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such general conclusions?"

"I cannot pretend to throw the least light upon such abstruse problems. The mystery of the beginnings of all things is insoluble by us; and I for one must be content to remain an Agnostic."¹

Evidently Darwin's unmethodical considerations of the problem have developed from an original theological view to a vague theism, and from that to a hesitating denial of the possibility that any intelligible explanation of the teleology of nature can be found. But from teleology itself he cannot escape. Thus his position is identical with that of Hume and a long line of other thinkers. The tormenting riddle, eternal and inexplicable, is the existence, not of the universe, but of nature.

The whole history of thought does but prove the justice of this conclusion. We may progressively lay bare the order of nature and define it with the aid of the exact sciences; thus we may recognize it for what it is and see that it is teleological. But

¹ *Life and Letters of C. Darwin*, London, 1888, Vol. I, pp. 312-313.

we shall never find the explanation of the riddle. Upon this subject clear ideas and close reasoning are no longer possible, for thought has arrived at one of its natural frontiers. Nothing more remains but to admit that the riddle surpasses us and to conclude that the contrast of mechanism with teleology is the very foundation of the order of nature, which must ever be regarded from two complementary points of view, as a vast assemblage of changing systems and as an harmonious unity of changeless laws and qualities.¹

LAWRENCE J. HENDERSON.

HARVARD UNIVERSITY.

¹ Cf. Bosanquet, *The Principle of Individuality and Value*, London, 1912, p. 155.

THE FOUNDATION IN ROYCE'S PHILOSOPHY FOR CHRISTIAN THEISM.¹

THEISM is a philosophy, a system of thought about the ultimate nature of reality. Christianity is a religion, the relation of person to person—in Royce's words, a "form of communion with the master of life";² Christian theism is the form of philosophy reached by the reasoning which starts from the experience of the Christian life. In this brief paper which, from the limits of time imposed, must be mainly expository, only secondarily critical, and not in any degree constructive—I wish to set forth the teachings of Professor Royce which seem to me in essential harmony with those of Christian theism. My exposition is based largely, though not entirely, upon two works of what might be called his middle period, *The Conception of God* and *The World and the Individual*; and I have a two-fold justification for this restriction. In the first place, Royce says explicitly in the preface of *The Philosophy of Loyalty* (1908) that he has no change to report in his "fundamental metaphysical theses"; and he characterizes the teachings of *The Problem of Christianity* (1914) as in "essential harmony with the bases of the philosophical idealism set forth in earlier volumes."³ My second reason for treating only incidentally the later books in which Dr. Royce concerns himself specifically with problems of religion is that these books avowedly or implicitly discuss religion in its non-theistic aspect. In *The Problem of Christianity* this limitation of the subject is avowed over and over again. Consideration of the relation between God and man is dismissed as a 'metaphysical issue'; and the discussion is restricted to 'human objects' in order 'deliberately [to] avoid theology.'⁴ Of necessity, therefore, if we seek the foundations of theism we must seek

¹ Substantially as read at the meeting of the American Philosophical Association, December 28, 1915.

² *Sources of Religious Insight*, p. 220.

³ *The Problem of Christianity*, Vol. I, p. X. Cf. Vol. II, pp. 292, 295.

⁴ *Ibid.*, I, p. 374.

them in the earlier and less predominantly ethical and psychological works of Professor Royce.

In *The Spirit of Modern Philosophy* (1892) Dr. Royce explicitly labels himself as "a theist."¹ In *The Conception of God* (1895 and 1897) he characterizes his view as "distinctly theistic and not pantheistic,"² and insists that "what the faith of our fathers has genuinely meant by God is . . . identical with the inevitable outcome of a reflective philosophy."³ The argument by which this theistic position is reached is so well-known that it need be suggested in only the briefest fashion. It will be found, in greater or less elaboration, in every one of Royce's books, beginning with *The Religious Aspect of Philosophy*. The realistic conception of reality external to mind is found to involve internal inconsistency⁴ and the universe is accordingly conceived as through and through ideal. This ideal world, in the second place, is shown to be rightly viewed only as a world of interrelated selves.⁵ And each of these selves, it is argued, directly knows—as well through its error as through its aspiration—the existence of a reality-greater-than-itself. This Greater Reality must, finally—in accordance with the personalistic premiss of the argument—be a Greater Self of which each lesser self is an identical part yet by which it is transcended.⁶ The specifically theistic form of this argument stresses the infinite possibility of error and thus leads inevitably to the conclusion⁷ that the transcending (yet immanent) Self is infinite, all-including. The characteristic features of this argument, as is well known, are, first, the completely empirical starting-point from facts of the scientific and the moral life, and, second, the substitution for a causal argument to the existence of God of an argument based, in Royce's phrase, on correspondence⁸

¹ P. 347.

² *The Conception of God*, second edition, p. 49.

³ *Ibid.*, p. 50.

⁴ Cf. especially, *The World and the Individual*, I, Lecture III.

⁵ Cf. especially, *The World and the Individual*, II, Lectures IV. and V.

⁶ Cf. *The Religious Aspect of Philosophy*, pp. 422 ff.; *The Spirit of Modern Philosophy*, p. 380; *The Conception of God*, second edition, pp. 41 et al.; *The World and the Individual*, II, p. 298 f., *Sources of Religious Insight*, pp. 108 f.

⁷ Cf. *The Religious Aspect of Philosophy*, chapter XI, especially, pp. 424 ff., and *The Spirit of Modern Philosophy*, end of p. 425.

⁸ *The Religious Aspect of Philosophy*, p. 354.

—the correspondence of individual purpose with super-individual experience. The outcome is the conception of the Universe as Absolute Self—as All-Knower to whom “is present all possible truth”;¹ as Infinite Will² realizing itself ‘in the unity of its one life.’ And this ‘Supreme Person’ is, furthermore, conceived as All-Enfolder,³ as organic unity of all the myriads of existent partial selves.

The main purpose of this paper, as already stated, is to point out the theistic conceptions inherent in the philosophical system so summarily formulated and, in particular, to emphasize the peculiarly Christian features of the teaching.

I. “God” in the words of the Westminster Catechism “is a Spirit, infinite, eternal, and unchangeable in his being, wisdom, power, holiness, justice, goodness and truth.” In essential conformity with this doctrine, Royce teaches that God is an infinite,⁴ or absolute,⁵ self-conscious⁶ person,⁷ an Individual,⁸ in fact “the only ultimately real individual,” to whom the whole temporal process is eternally present.⁹

There is no need to argue that the conception of God as spirit, or person, is fundamental to Christian theism but I must make good my assertion that Royce should be interpreted as using the words ‘self-conscious,’ ‘person,’ and ‘individual’ in what is *qualitatively* the sense in which they are applied to human beings. Christian theism is distinguished from many forms of ‘natural religion’ by its conception of God as essentially like-minded with us human selves. There can be no doubt that this is also Royce’s

¹ *The Religious Aspect of Philosophy*, p. 424²; *The Conception of God*, pp. 12 f.; *The World and the Individual*, I, p. 426; *Ibid.*, II, pp. 299, 364; *Sources of Religious Insight*, p. 134.

² *The Religious Aspect of Philosophy*, p. 452; *The Spirit of Modern Philosophy*, pp. 429 f., 436²; *The Conception of God*, pp. 13, 202 f., 272; *The World and the Individual*, I, pp. 459², 461; *Ibid.*, II, p. 398.

³ *The Religious Aspect of Philosophy*, pp. 435, 441; *The Spirit of Modern Philosophy*, pp. 373², 379⁴, 418²; *The World and the Individual*, I, pp. 341, 418³.

⁴ *The Religious Aspect of Philosophy*, pp. 434 et al., 483.

⁵ *The Conception of God*, and *The World and Individual*, *passim*.

⁶ *Ibid.*, II, p. 336; *Conception of God*, p. 302.

⁷ *The Spirit of Modern Philosophy*, p. 380; *The Conception of God*, p. 349; *The World and the Individual*, II, p. 418.

⁸ *Ibid.*, I., pp. 40,

⁹ *Ibid.*, II.

teaching about the Absolute. "Unless," he says, "the Absolute knows what we know when we endure and wait, . . . when we long and suffer, the Absolute in so far is less and not more than we are."¹ In truth, all that exists, including my own feeling and thought and percept, exists only by virtue of being experienced by the Absolute Self.

To prove the equivalence of the Absolute to the Christian's God it is, in the second place, necessary to show that by 'Absolute Self' Royce means a genuine person who "is . . . and knows us,"² in whose 'presence' I may stand,³ who "values and needs" my "deed";⁴ and, conversely, that he does *not* mean by 'Absolute Self' a mere aggregate of finite selves; that his self-conscious, absolute person is not an unknown Absolute 'coming to consciousness' in the totality of finite, or partial, selves. In truth, Professor Royce has fully guarded himself against this essentially pluralistic interpretation of his doctrine. "The Absolute Unity of Consciousness," he writes, "contains not merely finite types of self-consciousness but the . . . consciousness of its own being as Thinker, Experiencer, Seer, Love, Will."⁵ By this statement Dr. Royce invests the Absolute with a 'consciousness of its own' explicitly contrasted with 'finite types of consciousness.' In the following words he attributes to the Absolute *both* the human and the more-than-human experience. "I hold," he says, "that all finite consciousness *just as it is in us*—ignorance, striving, defeat . . . narrowness—is all present from the Absolute point of view but *is also* seen in unity with the solution of problems . . . the overcoming of defeats . . . the supplementing of all narrowness."⁶ By these words Royce clearly indicates that, in his view, the Absolute has an experience transcending, though not 'external to,' that of the human selves. Many other quotations might be made to substantiate my conclusion that the Absolute of Royce's system is 'a person' *in the*

¹ *The World and the Individual*, II, p. 364.

² *The Religious Aspect of Philosophy*, p. 471.

³ *The World and the Individual*, II, p. 150.

⁴ *The Philosophy of Loyalty*, pp. 396-397.

⁵ *The Conception of God*, p. 301.

⁶ *The World and the Individual*, II, p. 302. Italics of second phrase mine.

sense in which the Christian's God is a person, and neither an aggregate nor an Unknown Reality. A similar conclusion must be drawn from Royce's trenchant criticism of Bradley's conception of an Absolute Experience which is not to be regarded as an Absolute Self. "The Absolute," Royce concludes "escapes from selfhood and all that selfhood implies, or even transcends selfhood, only, by remaining to the end a Self."¹

This conclusion can not, however, fairly be stated without consideration of the question whether it rightly represents the outcome of Professor Royce's most recent thinking. In his later books *The Philosophy of Loyalty*, *Sources of Religious Insight* and *The Problem of Christianity* the expression 'Absolute Self' occurs incidentally or not at all; and the experience, referred to in all these books, which transcends and completes that of the human self is variously known as the 'wider' or 'superhuman' or 'superindividual insight,'² 'the conscious and superhuman unity of life'³ or 'conspectus of the totality of life';⁴ and, finally, as the 'Beloved Community.'⁵ We may profitably neglect the vaguer and less closely analyzed terms 'superhuman insight' and 'unity of life' and confine our attention to the problem presented to us by Dr. Royce's explicit statement of "the thesis . . . that the essence of Christianity, as the Apostle Paul stated the essence, depends upon regarding the being [called] . . . the 'Beloved Community' as the true source, through loyalty, of the salvation of man"⁶ and by his further declaration that he holds "this doctrine . . . to be both empirically verifiable within the limits of our experience and metaphysically defensible as an expression of the life and spiritual significance of the whole universe." Our problem of interpretation is precisely formulated in the question: does Royce intend either to supplant or to reinterpret his earlier conception of the Absolute Self by the doctrine of the Beloved Community? An affirmative answer

¹ *The World and the Individual*, I, p. 552.

² *Sources of Religious Insight*, pp. 108, 112 et al.

³ *The Philosophy of Loyalty*, p. 357, 376.

⁴ *Ibid.*, p. 395. Cf. pp. 369, 372.

⁵ *The Problem of Christianity*, *passim*.

⁶ *Ibid.*, I, p. 26. Cf. p. 417 and II, p. 390.

to the question would of course invalidate the conclusion, based on the study of Royce's earlier books, that his position coincides with that of the Christian theist, for every theist distinguishes between God and the church.¹ To the discussion of this problem the next following paragraphs are devoted.

Unquestionably, Royce seems by certain statements to make the universal community equivalent to the Self of his earlier books. He declares "this essentially social universe . . . to be real, and to be in fact the sole and supreme reality—the Absolute,"² and he asks: "What kind of salvation does it offer? . . . What does it call upon a reasonable man to do?" Yet, in spite of expressions like these, I believe that Royce does not actually identify the Absolute Self with the Universal Community. His meaning, as I conceive it, is more exactly stated when he says that "the divine life is *expressed* in the form of a community" and that "the whole real world is the *expression* of one divine process . . . the process of the Spirit."³ 'To be expressed by' does not mean 'to be constituted by'; and the 'divine life' and 'the spirit' are distinguished from the 'community' and from the world, though not external to them.⁴ This is the meaning, also, of the repeated assertion that the real world, conceived in Charles Peirce's fashion, as a vast system of signs, "contains the interpreter of these signs. . . . Its processes," Royce adds, "are infinite in their temporal varieties. But their interpreter, the spirit of this universal community,—never absorbing varieties nor permitting them to blend—compares, and, through a real life, interprets them all."⁵ The plain implication of these passages is that 'interpreter' and 'spirit' not only include but transcend world and church. Thus, it is at least compatible with the main trend of *The Problem of Christianity* to suppose that Royce, while primarily conceiving Christianity in its relation to the church, or beloved community, none the less distinguishes God as spirit, counsellor, or interpreter from

¹ Cf. *The Problem of Christianity*, I, p. 105.

² *Ibid.*, II, p. 296; cf. pp. 281, 390.

³ *The Problem of Christianity*, II, pp. 388, 373. Italics mine.

⁴ *Ibid.*, pp. 359, 362, 373.

⁵ *Ibid.*, II, pp. 291, 324; cf. p. 272.

the church in which he expresses himself and from the world which he interprets. (The Christian theologian will not fail to remark the virtual identity, explicitly stressed by Royce, between God conceived as spirit indwelling in the beloved community and the Holy Spirit, third Person of the Christian Trinity.¹ The conception of the Beloved Community thus illuminates one of the most dimly apprehended of Christian doctrines.)² A second confirmation of this view, that Royce distinguishes God from the community, is gained by a scrutiny of the argument by which he seeks to establish the existence of the community as 'a sort of supra-personal being'³ with 'a mind of its own.'⁴ The argument, like most of those in Royce's later books, differs *toto cælo* from the closely articulated, logically ordered reasoning of his strictly metaphysical works. It consists partly in the observation that custom, language, and religions are products of community life⁵ and partly in the significant teaching that an individual "may love his community as if it were a person."⁶ But all this proves not at all that a community is a self, or person, but merely—to quote Royce himself—that it 'behaves' and is treated 'as if' a person.

This interpretation of Royce's conception is in complete harmony with the detailed teaching of a relatively recent paper.⁷ "God," he writes, "as our philosophy ought to conceive him, is indeed a spirit and a person; but he is not a being who exists in separation from the world, simply as its external creator. He expresses himself in the world, and the world is simply his own life as he lives it out. . . . You can indeed distinguish between the world as our common sense, properly but fragmentarily, has to view it and as our sciences study it . . . and God, who is

¹ *Ibid.*, II, pp. 14 ff. It may be noted that this doctrine is in harmony with Hegel's teaching, though entirely independent of it.

² The two preceding sentences have been added to the paper as read.

³ *The Problem of Christianity*, I, p. 67.

⁴ *Ibid.*, p. 62; cf. II, p. 87.

⁵ *The Problem of Christianity*, I, p. 62.

⁶ *Ibid.*, p. 67; cf. p. 101 and II, pp. 91 ff.

⁷ "What is Vital in Christianity." Prepared for a series of addresses to the Young Men's Christian Association of Harvard University in 1909. In *William James and Other Essays*.

infinitely more than any finite system of natural facts or of human lives can express. . . . This entire world is present at once to the eternal, divine consciousness as a single whole, and this whole is what the absolute chooses as his own expression."¹ Evidently Royce teaches, to use the traditional theological phraseology, not only the immanence but the transcendence of God; he conceives God not only as "the divine being" who is "the very life of the community"² but as a spirit who views the world "from above."³

II. Royce's doctrine of the relation of man to God more obviously coincides with the teaching of Christian theism. In conformity with the profoundest Christian conceptions he holds (a) that God shares every human experience, and that the life which man shares with God is essentially good, not evil; (b) that every human being is an expression of God's individuating will; (c) that the human self has a relative freedom; that he may and actually does, act in opposition to the divine will and that his sin must be atoned for; (d) that the human self is an essentially social being.

(a) The Christian conception, based on the Master's teaching, of God as father, although not literally an innovation in religious doctrine, was so vitalized by the life and words of Jesus that it rooted itself in the hearts of men. Perhaps the most fundamental contribution of Royce to Christian thought consists precisely in the fact that he argues the inherent metaphysical necessity of this conception which Jesus revealed to his disciples and which traditional theology laboriously tries to establish by a 'cosmological' argument to God as 'first' of temporal causes or by a design-argument based on arbitrarily selected facts. To Royce, on the other hand, this doctrine is an immediate consequence of the conception of God as All-Experiencer, as Absolute Knower. For, according to his absolutistic yet personalistic philosophy, the percepts, the thoughts, the sorrows, the fidelities of every least human self are real only in so far as the Absolute Self

¹ *Op. cit.*, pp. 167-169.

² *The Problem of Christianity*, II, p. 75.

³ "What is Vital in Christianity," *op. cit.*, p. 168.

experiences them and "knows [them] to be whatever they are."¹

Even in its supreme conception of God as suffering, as 'touched with the feeling of our infirmities' and 'afflicted in our affliction,' the Christian doctrine that God is Father of men follows at once from the absolutist's conception of God—and from this conception only. The pluralistic theist, who teaches that God shares human experience, must meet insistent difficulties: How should God know me if I am separate from him? And how can he share my experience when he is all-wise and all-powerful and I am so palpably ignorant and so piteously ineffective? But this Roycean God is my Greater Self; I am 'identically a part' of him. I exist, and even my erroneous conception exists, only as each is a transcended object of his experience. He is indeed afflicted in my affliction, for it is real only as he experiences it.

At this point emerges another peculiarly Christian feature of Royce's theism. "God, in his being," the Westminster catechism continues, "is wisdom, power, holiness, justice, goodness and truth." But Christian philosophy from its very beginning has found difficulty in justifying God and has found itself obliged to sacrifice now the belief in God's goodness, now the conviction of his power, to the flinty facts of pain, stupidity, and sin. Royce's philosophy is, as all readers of him know, an optimistic conception of a good God. It is an invincible optimism for it cherishes no illusions, and affirms instead of ignoring the 'capriciousness of life,' 'the degradation of the sinner's passive victim,' the 'brute chance' and the mechanical accidents to which the nature-world is prey.² Professor Royce does not, to be sure, claim to offer a specific explanation of specific evils. But he guides the thought of the Christian philosopher into a peaceful way, a metaphysical assurance that the world, inclusive of this my dastard sin or blinding grief, is expression of the will of an all-wise chooser who is himself suffering every grief and stung by every sin. Though "he knows [the evils] as we in our finitude can not," yet "he endures them as we do. And so, if knowing

¹ *The World and the Individual*, II, p. 346.

² *Spirit of Modern Philosophy*, pp. 467-468.

them he wills these horrors for himself, must he not know wherefore?"¹

(b) The Christian doctrine of the fatherhood of God directly implies that other Christian doctrine of the uniqueness and value of the human soul. For it belongs to every parent to individualize his children. The most ordinary child in a long school procession of little replicas of himself is instantly descried and selected by the individualizing eye of watching father and mother. And Christianity, which teaches that God is a father, of necessity teaches that the human soul is a 'pearl of great price,' a 'treasure hid in a field'—a coin, a sheep which, if lost, must be sought for till it is found. Now this religious teaching, also, is metaphysically justified by the Roycean doctrine that every man is the expression of a unique purpose of the Absolute Self. To the conventional critic's protest that the human self would be lost in the Absolute 'as a river in the sea,' Royce replies that on the contrary, the rich variety, the distinctness, and the stability of the Absolute's purposes furnish the only guarantee of the individuality of the human self. . . . The identity of the partial self with the Absolute is never, in his view, a mere identity without a difference."

(c) Royce teaches, in the third place, that the partial or human self has a 'relatively free' will.² He accepts ("provisionally" however) "so much of the verdict of common sense as any man accepts when he says: That was my own voluntary deed, and was knowingly and willingly sinful." The metaphysical reconciliation of the absoluteness of the divine will and the divine experience with even this relative human freedom Royce has, in my opinion, insufficiently worked out. To be sure, he regards the freedom as merely relative: the Absolute is the triumphing, creative Will. And it is the temporal, not the more-than-temporal, finite self of which Royce says that "it was good that he should be free." Yet with all these qualifications the question persists: how can a human self be free to oppose the will of Him by whose selective attention all that exists has its being? how

¹ *Op. cit.*, pp. 469-70.

² *The World and the Individual*, II, p. 426; cf. p. 398.

can I, in Royce's phrase, "choose to forget"? how can I "become a conscious and deliberate traitor"?¹ The truth is that Royce seems to discuss sin psychologically and ethically rather than metaphysically. And the result is that we have in his pages a masterly psychological analysis of that violation of moral loyalty which he calls sin² and which he will not have smoothed away or ignored. Organically related to this conception of sin³ is Royce's formulation of the great doctrine of the atonement—an idea, Royce says, which "if there were no Christianity would have to be invented before the higher levels of our moral existence could be fairly understood."⁴ There is atonement, Royce proceeds, when a creative deed is made possible by a treason and when "the world, as transformed by this creative deed, is better than it would have been had that deed of treason not been done at all."⁵ Atonement, in this sense, as he rightly asserts, is a fact "as familiar and empirical as death or grief."⁶ Evidently, this teaching interprets the experience of a suffering and atoning God as truly as it describes a human consciousness, but—true to the arbitrary limits which he has set to his discussion—Royce simply 'ignores' atonement 'as between God and man.'⁷

(d) There is little time, and probably little need, to summarize Royce's description of the Church, or 'Beloved Community.' The meaning of the term 'community' is precisely stated and richly illustrated. "There are," Royce points out, "in the human world two profoundly different grades, or levels, of mental beings—namely the beings that we usually call human individuals and the beings that we call communities. . . . Of the second of these levels, a well-trained chorus, . . . or an athletic team during a contest, or a committee in deliberation . . . —all these are good examples."⁸ "And yet a community is not," Royce repeatedly

¹ *The World and the Individual*, II, p. 359; *Problem of Christianity*, I, p. 252.

² *The Problem of Christianity*, I, p. 242.

³ It is beside the purpose of this paper to stress the fact that in spite of Royce's over-emphasis of the Pauline factor of Christianity he explicitly adopts Jesus's teaching about sin rather than Paul's. Cf. *Problem of Christianity*, I, pp. 225, 227 ff.

⁴ *Ibid.*, p. 271 *et al.*

⁵ *Ibid.*, p. 307 f.

⁶ *Ibid.*, p. 304.

⁷ *Ibid.*, p. 305.

⁸ *The Problem of Christianity*, I, pp. 164-165.

states, "a mere collection of individuals."¹ It is, on the contrary "a sort of live unit that has organs";² it "grows and decays"³; it "has a mind" whose "intelligent mental products," namely, languages, customs, and religions, "follow psychological laws."⁴ "A community behaves like an entity, with a mind of its own,"⁵ it "can love" and act;⁶ and, conversely, it can be loved and served.⁷ The Beloved Community, or Church, which now becomes for Royce at once the 'human founder'⁶ of Christianity, the source of salvation, and the object of the characteristically Christian consciousness—the Beloved Community is distinguished from the ordinary community by its comprehensiveness, and by its 'uniting many selves into one': it is, in a word, the 'Universal Community.'⁸ To discuss, in any detail, the implications of this conception would far overflow the boundaries of time allotted to this paper. But a final comment must be made on the inadequacy of the doctrine of the Beloved Community if it must be regarded, as apparently its author regards it, as an account of the historic Christian Church. [The cardinal defect in Royce's conception is—psychologically stated—his undue subordination of the rôle of the leader to that of the group, or—historically stated—his underestimation of the fact that passionate loyalty to the person of Christ was the bond of unity in the early Christian church. On the other hand, Christianity truly is, as Royce insists, an inherently social religion; and loyalty to the universal community is indeed the essential moral factor of the Christian religion.

MARY WHITON CALKINS.

WELLESLEY COLLEGE.

COMMENT BY PROFESSOR ROYCE. EXTRACTS FROM A LETTER
TO MISS CALKINS, MARCH 20, 1916.

"The account which you kindly give of the position taken in my earlier books,—that is, in all the books that precede *The*

¹ *Op. cit.*, p. 62.

² *Ibid.*, p. 62.

³ *Ibid.*, pp. 64-65; cf. p. 167.

⁴ *Ibid.*, p. 95.

⁵ *Ibid.*, pp. 67, 95, 101.

⁶ *Ibid.*, p. 417.

⁷ *Ibid.*, p. 99.

⁸ *Ibid.*, p. 212 *et al.*

Problem of Christianity,—is as accurate and scholarly as it is friendly. I am not conscious of having taken in my recent work a position inconsistent in its genuine meaning with the positions which you recognize. Therefore, precisely in so far, I have and can have only thanks for your interpretation and for your aid.

“But the two central ideas upon which my *Problem of Christianity* turns, the idea of the community, and the idea of what the historical theology of the Christian church early learned to call ‘the holy spirit’ are ideas which are as living, and growing, as they are ancient. They grew when the prophets of Israel began to formulate their doctrine of Jerusalem, which, in the beginning was a city, of somewhat questionable architecture and morals, in the hill districts of Judea; but which, in the end, became the heavenly realm of which the mystic author of the well-known mediaeval hymn wrote, and which the world is still trying to understand. These two ideas, the Community, and the Spirit, have been growing ever since. They are growing today. They certainly have assumed, in my own mind, a new vitality, and a very much deeper significance than, for me, they ever had before I wrote my *Problem of Christianity*. That book records the experience and the reflections which have been working in my mind daily more and more ever since I wrote it. These reflections constitute for me, not something inconsistent with my former position, but a distinct addition to my former position, a new attainment,—I believe a new growth. I do not believe that you change in a way involving inconsistency when you reinterpret former ideas.

“To borrow a figure from a remote field, I do not believe that Lincoln acted in a manner essentially inconsistent with his earlier political ideas when he wrote the Emancipation Proclamation and freed the slaves. To be sure, before he wrote that Proclamation, he had seen a new light. My poor little book on *The Problem of Christianity* is certainly no Emancipation Proclamation, and is certainly no document of any considerable importance. But it certainly is the product of what for me is a new light, of a new experience, of ideas which are as new to me as the original form of my idealism was new to me when I first defined it.

"As for what my present position means, let me say only this: For me, at present, a genuinely and loyally united community which lives a coherent life, is, in a perfectly literal sense, a person. Such a person, for Paul, the Church of Christ was. On the other hand, any human individual person, in a perfectly literal sense, is a community. The coherent life which includes past, present, and future, and holds them reasonably together, is the life of what I have called a Community of Interpretation, in which the present, with an endless fecundity of invention, interprets the past to the future, precisely as, in the Pauline-Johannine type of theology, Christ, or the Spirit, interprets the united individuals who constitute the human aspect of the Church to the divine being in whom these members seek, at once their fulfilment, their unity, their diversity, and the goal of their loyalty. All this is a scrap of theology, which serves as a hint of what I have been trying to formulate in this recent phase, not merely of my thinking, but of my experience. I do not know any reason why this phase of my thinking should attract any other interest than what may be due to its actual relations to a process which has been going on in human thought ever since Heraclitus remarked that the Logos is fluent, and ever since Israel began to idealize the life of a little hill town in Judea.

"I stand for the importance of this process, which has led Christianity to regard a community not merely as an aggregate but as a Person, and at the same time to enrich its ideal memory of a person until he became transformed into a Community.

"The process in question is not merely theological, and is not merely mystical, still less merely mythical. Nor is it a process invented merely by abstract metaphysicians. It is the process which Victor Hugo expressed in *Les Misérables* when he put into the mouth of Enjolras the words, 'Ma mère, c'est la république.' As I write you these words, Frenchmen are writing the meaning of these words in their blood, about Verdun. The mother which is a republic is a community which is also a person, and not merely an aggregate, and not merely by metaphor a person. Precisely so, the individual patriot who leaves his home behind and steadfastly serving presses on in ardent quest of the moment

when his life can be fulfilled by his death for his country, is all the more richly and deeply an individual that he is also a community of interpretation, whose life has its unity in its restless search for death on behalf of the great good cause,—its ever-living Logos in its fluent quest for the goal.

“Now this view is at present an essential part of my idealism. In essential meaning I suppose that it always was such an essential part. But I do not believe that I ever told my tale as fully, or with the same approach to the far-off goal of saying something some time that might prove helpful to students of idealism as in the *Problem of Christianity*.”

•

THE INTERPRETATION OF RELIGION IN ROYCE AND DURKHEIM.

IN the introduction to his series of Gifford lectures, Professor Royce distinguished three different conceptions of the study of natural religion. The first is based upon the results of natural science accepted uncritically. The second conception views religion as a confession of the needs and the experiences of men, as "the voice of human nature itself." Now the needs of human nature, the problems and tasks of men in society and in the work of civilization, are matters of experience and of history, of psychology and of the social sciences. One may be distrustful of metaphysics and of every enterprise of philosophical synthesis which claims to be other than a report of the facts of experience, and one may nevertheless be profoundly interested in the function of religion within experience and within society. The sociologist will approach religion from this second point of view. The third conception of the study of natural religion identifies it with a study of the most fundamental metaphysical problems. It attempts the 'contemplation of being as being.' It is the traditional approach of the technical philosopher who views the significance of religion as consisting in the truth of metaphysical doctrines concerning the real world. It is thus that *The World and the Individual* views the problems of religion.

There is something more than a decade between *The World and the Individual* and *The Problem of Christianity*. Here too the fundamental problems of the philosophy of religion are dealt with, but from a point of view decidedly different from that of the earlier work. *The Problem of Christianity* approaches the study of religion from the second rather than the third of those three conceptions mentioned just now. The ideas and doctrines of religion are here viewed as growing out of the social experience of mankind; they are needed primarily in order to express "the saving value of the right relation of any human individual to the community of which he is a member." They need "no technical

metaphysical theory to furnish a foundation for them.”¹ The intensely practical and empirical task of man in building up a worthy and stable social order generates the life of religion. To be sure, it is possible to exaggerate this contrast between *The World and the Individual* and *The Problem of Christianity*. The central metaphysical thesis of the earlier book concerns precisely the way in which all true beliefs, and the real world itself, are linked to our practical interests and are fulfilments of purpose. And in the later book, religion is viewed not only as a practical solution of a social problem, not only as a ‘doctrine of life,’ but as a ‘doctrine of the real world’ as well. And this ‘doctrine of the real world’ is essentially that of Royce’s earlier writings. Nevertheless, the shift of emphasis and point of view from *The World and the Individual* to that of *The Problem of Christianity* is significant. The sociologist would discover, on the whole, little which concerned his own problems in *The World and the Individual*; he can discover very much indeed in *The Problem of Christianity*, yet both of them are investigations of the meaning of religion.

It is Royce’s interpretation of religion in terms of our social experience which invites comparison with other interpretations of religion in similar terms. There are many of these at the present time. One such I here choose, that of Émile Durkheim. The significance of such a comparison is enhanced if we remember that Royce and Durkheim are the spokesmen for two different philosophical traditions; the bearing of idealism and positivism upon our social interests and the tasks of civilization may become apparent from a study of these two men. To select but a few of the more prominent topics here which invite comparison and discussion, to point out some notable agreements between Royce and Durkheim, and some divergencies as well, is the object of this brief note.

Royce and Durkheim agree in regarding man’s social experience as, in some sense, the source of religion, as the region in which the dominant characteristics of religion make their appearance, and finally, as presenting man with the *objects* of his religious

¹ *The Problem of Christianity*, Vol. I, p. xx.

ideas and cult. That "the reality which religious thought expresses is society,"¹—this is the fundamental thesis of both writers. For both men, religion is a language which utters truths about the right relations between an individual and some community. No one better than Royce has given an interpretation of the traditional doctrines of Christianity in terms of the significance which the community has for the individual, in terms of what the community really is and does. No one better than Durkheim has interpreted primitive religion in terms of the overwhelming importance, in primitive life and thought, of man's social experience. This general agreement between Royce and Durkheim rests upon the thesis, which each of them has elaborately defended, of the autonomy, the reality, and the uniqueness of society. Durkheim's entire social philosophy is a commentary upon what Royce speaks of as "the problems of the two levels of human existence."² There is—so Durkheim in one place sums up the matter—"an individual being which has its foundation in the organism and the circle of whose activities is therefore strictly limited, and a social being which represents the highest reality in the intellectual and moral order that we can know by observation—I mean society. . . . In so far as he belongs to society, the individual transforms himself, both when he thinks and when he acts."³

This doctrine of "the two levels of human existence," the unique reality of the community and its importance for the life of the individual, is made use of by Royce and Durkheim in somewhat different ways, in their account of the office and the significance of religion in social experience. For Royce, the social meaning of religion lies in its ability to heal an inevitable mutilation and discord in our nature which civilization increasingly involves. This discord is a result of the very processes which alone make civilization possible. The higher products and the

¹ Durkheim, *The Elementary Forms of the Religious Life*, translated by Swain, London, 1915, p. 431.

² *The Problem of Christianity*, Vol. I, p. 203.

³ *Elementary Forms of the Religious Life*, p. 16. Durkheim discusses the autonomy of "collective representations" and their relation to individual representations in an earlier article in *Revue de Métaphysique et de Morale*, 1891, p. 273.

finer achievements of man's social life are possible only when individuals have reached a correspondingly high level of moral self-consciousness and of reflective freedom. "My moral self-consciousness is bred in me through social situations that involve—not necessarily any physical conflict with my fellows,—but, in general, some form of social conflict,—conflict such as engenders mutual criticism."¹ This is the 'moral burden of the individual,' this discord and mutilation, this conflict between his increasing self-consciousness and that tightening of social bonds which civilization brings with it. Such discord and inner conflict increase with the growth in the complexity of life and in the social structures of civilization. Social progress thus "breeds men who, even when they keep the peace, are inwardly enemies one of another."² There is a clash between the inner will, the self-assertion, the longing for freedom, and the constraints which society more and more imposes. It is this situation, depicted by Royce with such insight and such skill, which, within the tasks of man's social life and independently of all dogma, increasingly calls for salvation. The function of religion is to furnish such a salvation. It can come about only through a spiritual transformation inspired by the love for a community. This is the religion of loyalty, and this is its task in the enterprise of civilization. The truths of Christianity may all be stated in terms of this social situation, and of its healing. Such is the way in which Royce, in *The Problem of Christianity* interprets religion as the work of man's social consciousness, as the function of the 'beloved community' in the life of man.

Let us turn briefly to the way in which Durkheim too interprets religion in terms of social experience. He has set this forth at greatest length in his study of primitive religion. Now the one fundamental and permanent idea in religion is the idea of the *sacred*. "All known religious beliefs, whether simple or complex, present one common characteristic: they presuppose a classification of all the things, real and ideal, of which men think, into two classes or opposed groups, generally designated by two

¹ *The Problem of Christianity*, Vol. I, p. 139.

² *Ibid.*, p. 143.

distinct terms which are translated well enough by the words *profane* and *sacred*. This division of the world into two domains, the one containing all that is sacred, the other all that is profane, is the distinctive trait of religious thought."¹ Durkheim's great service, I take it, to social psychology lies in giving us a natural history of this 'collective representation' of the sacred. For his main thesis is that society is the only reality which can generate this idea. It is the community, it is man's social experience which is "constantly creating sacred things out of ordinary ones."² Religion, according to Durkheim, is just this community experience together with its residue, the idea of the sacred, and the acts and beliefs which center around that idea. His formal definition of religion is this: "A religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden—beliefs and practices which unite into one single moral community called a church, all those who adhere to them."³ So much for Durkheim's central thesis in his *Elementary Forms of the Religious Life*. But this is primarily a thesis concerning the past, concerning the beginnings of religion in man's historical life. What of the function and the fortunes of religion within the growth of civilization,—that, which for Royce, is so much the essential thing? To answer this we need to turn to an earlier book of Durkheim, in which he studies, not primarily religion, but the process and the causes of civilization. In his *De la Division du Travail Social*,⁴ Durkheim views the growth of civilization as an increase of the division of labor. It is a process of differentiation, of increasing individualism. So much is, of course, a commonplace. But the essential and—to some extent at least—novel character of Durkheim's essay lies in his belief that the division of labor, instead of causing the bonds of social solidarity to dissolve, is itself the source of a new form of such solidarity. He calls it "organic solidarity" in contrast with the more primitive "mechanical solidarity." Mechanical solidarity

¹ *The Elementary Forms of Religious Life*, p. 37.

² *Ibid.*, p. 212.

³ *Ibid.*, p. 47.

⁴ Paris, 1902.

is that which results from social pressure upon individuals who are in all essential respects similar, none of whom has as yet attained any distinctive and individual self-consciousness. Such mechanical solidarity is much like the early "blind instinctive affection," the "natural love of individuals for communities," arising "from the depths of our still unconscious social nature," which Royce contrasts with genuine loyalty.¹ In his *Elementary Forms of the Religious Life*, Durkheim shows how the collective consciousness of such a primitive society, constituted by mechanical solidarity, generates the life of religion. In his earlier book, he shows how such primitive mechanical solidarity is being supplanted more and more by organic solidarity, defined by the division of labor. Does it not follow that, for Durkheim, religion must necessarily play a constantly decreasing rôle in the development of civilization? If the division of labor is itself the source of social solidarity, of a new and essentially non-religious sort, then there is no such problem of salvation becoming more and more insistent as civilization progresses, which Royce regards as solved only through a religion of loyalty. This might plausibly appear to be a fair statement of the relation between Royce's and Durkheim's interpretation of religion. Durkheim distinctly says, for instance, that the rôle of our "collective consciousness diminishes as the division of labor progresses," and accordingly that "not only does the domain of religion not increase along with that of temporal life, and in the same measure, but it is more and more decreasing . . . it is a witness that there is a constantly diminishing number of collective sentiments and beliefs sufficiently collective and sufficiently strong to take on a religious form."² Moreover, the division of labor which Durkheim views as *itself* the source of an organic solidarity, is it not identical with that limitation of our activity, that "narrowness of our span of consciousness," which is, for Royce, instead of a source of strength "one of our chief human sorrows?"³

Yet, thus to state the comparison between Royce and Durkheim is not, I believe, the last word. That distinction which for Royce

¹ *The Problem of Christianity*, Vol. I, pp. 180, 181.

² *De la Division du Travail Social*, p. 356.

³ Royce, *The Sources of Religious Insight*, p. 262.

is so important, between natural group emotion and a moral and religious loyalty runs along parallel with Durkheim's distinction between mechanical and organic solidarity. That is to say, a level of social organization characterized by the division of labor is one in which the reality of the community is more prominent and more decisive; it is one in which the community is of necessity more of a living organic being, and less of a merely natural aggregate. In a regime in which there is a highly developed division of labor, each individual's nature will appear, if you view him merely as an individual, vastly mutilated; how much more reason there is, then, to complete him, to discover the real substance of his being, to create—or to discover—the beloved community!

It is, perhaps, because Durkheim insists upon identifying religion only with the deposits of that primitive group emotion which characterizes mechanical solidarity, that he declines to see any religious significance in the accelerating process of the division of labor within civilization. With Rousseau and with Lamennais, most 'democratic' interpretations of religion in terms of our social experience seek for religion in some primitive sympathy, some species of universal fraternity which is only a prolongation of nature, in something on the level of Hume's *impression* rather than the *idea* which man imputes to his world through his own activity. An organic solidarity, held together by the division of labor, does not come of itself. It implies activity and loyalty, creation of and devotion to the community. Herein lies Durkheim's essential agreement with these words of Royce: "For the true Church is still a sort of ideal challenge to the faithful, rather than an already finished institution,—a call upon men for a heavenly quest, rather than a present possession of humanity. 'Create me,'—this is the word that the Church, viewed as an idea, addresses to mankind."¹

And, if Durkheim declines—as he does in his earlier book—to define this task of the creation of organic solidarity, of the transformation of a natural community into a moral community, in religious terms, it must be because of the divergent metaphysics

¹ *The Problem of Christianity*, Vol. I, p. 54.

which lie behind the thought of Royce and Durkheim. For positivism, the values of man's social experience remain something isolated from the total background of human experience; for idealism, there is some continuity between social experience and its environment, between the 'internal' and the 'external' meaning of our ideas. And religion not only avows that man's social experience is significant and creative within the processes of history and civilization, but that it is, in some sense, true as well. It is the spokesman for idealism, then, who can claim as religious those energies and ideas upon which the tasks of civilization must in the last analysis rely.

GEORGE P. ADAMS.

THE UNIVERSITY OF CALIFORNIA.

THE PROBLEM OF CHRISTIANITY.

I HAVE been asked to give a criticism of the first volume of Professor Royce's *The Problem of Christianity* from the systematic point of view. I am not quite sure what this cryptic phrase means, but I suppose that what I am really asked to do is to inquire how far the conception of Christianity which Professor Royce gives us in his expository volume is adequate from the point of view of the modern theologian: whether it includes all that he would wish to put in his own definition of Christianity, and whether it combines the elements it includes in proper proportion.

Before undertaking this task I should like to make three preliminary remarks:

1. I wish to express the satisfaction which we all feel in welcoming Professor Royce to this circle for the purpose of such a discussion. Professor Royce speaks modestly of his own attainments as a theologian, but the book in question gives evidence of such long-continued and sympathetic thought on the central problems of theology that we feel that its author can be nowhere more at home than in just such a circle as this.

2. I should like to raise the question whether Professor Royce has quite accurately defined the point of view from which he approaches his subject when he contrasts his own position, on the one hand, with that of all Christian theologians, whether liberal or conservative; and on the other hand, with those students of the subject whose attitude is one of pure indifference. A man who wins from his study of Christianity—a study conducted with the philosophic detachment which characterizes the present book—the conviction that in Christianity we have thus far at least “man’s most impressive vision of salvation and his principal glimpse of the home land of the spirit,”—a man who believes that the central ideas of the Christian religion answer the deepest needs of humanity and record its highest attainments to such an extent that whatever expression they may receive in the future

"will be attended with the knowledge that in its historical origins the religion of the future will be continuous with and dependent upon the earliest Christianity, so that the whole growth and vitality of the religion of the future will depend upon its harmony with the Christian spirit,"—such a man has surely passed the dividing line which separates the Christian from his critics and won the right to a place in the company of Christian theologians.

3. I wish to express my satisfaction at the clear insight expressed by our author in the very phrasing of his question, that what we most need to-day is a philosophy of history, a philosophy which shall interpret the individual experiences through which the race from time to time has passed, and the typical convictions to which it has given expression in the light of "the lesson that the religious history of the race, viewed if possible as a connected whole, has taught man." Whether we can succeed in such an interpretation may be arguable, but of this we may be sure, that if we lose faith in the possibility of such an interpretation, we shall empty life of its highest meaning and leave to philosophy only that cataloguing and re-cataloguing of logical concepts in forms admitting of equal application in every possible world to which Bertrand Russell has in his most recent utterance tried to confine it.

With so much by way of preface let me proceed at once to the task assigned me. I shall consider in order, first, what Professor Royce attempts to do; secondly, the method which he follows, and thirdly, the conclusion to which he comes.

1. And first then of what Professor Royce attempts to do. He defines his task himself on page 20 of Volume I as a double one. It is in part one of definition; in part one of valuation. "Our problem," he writes, "involves some attempt to find out what this great religion most essentially is and means, what its most permanent and indispensable features are. Secondly, our problem is the problem of estimating these most permanent and indispensable features of Christianity in the light of what we can learn of the lesson that the religious history of the race, viewed if possible as a connected whole, has taught man." What does

it mean to be a Christian, understanding by Christianity what Christians themselves have believed it to be? That is the first problem, the problem of definition. And the second grows naturally out of it. What is the significance of this Christian faith? Does it approve itself to us to-day as tenable? Can the modern man "consistently be in creed a Christian"? This is the problem of valuation.

So stated it would seem on the face of it that we were dealing with two quite different questions. But as a matter of fact, as Professor Royce well sees, they cannot be separated. How am I going to tell what belongs to Christianity? What is its essence as distinct from its transient and passing features? Clearly only through some process of value judgment by which I discriminate between the materials which history presents to me as more or less significant and enduring. Not all that Christians have regarded as Christian belongs to Christianity, but only that part of the Christian beliefs and experiences which maintain their authority in spite of the changes of the changing years. What the permanent core of vital truth may be, each must judge for himself, and his judgment may differ from his predecessors,—will in fact differ to a greater or less degree. In his book Professor Royce makes his contribution to this trans-valuation of values, and he justifies himself in so doing because the modern man, of whom he is the spokesman, is not simply a newcomer on the stage of history, but one who sums up in himself all the previous course of development, one therefore who looks upon Christianity not as an outsider, but as one to the manor born.

It is clear that in the very definition of his enterprise our author commits himself to a definite philosophical position, an attitude toward life and especially history, which finds in universals a significance which a merely nominalistic and sceptical metaphysics denies. For Royce this is a rational universe, and history, as Lessing taught, the education of the human race. He believes that humanity, taken as a whole "has some genuine and significant spiritual unity so that its life is no mere flow and strife of opinions, but includes a growth in genuine insight"

(p. 19). I for one believe that in this Professor Royce is profoundly right, and what I shall be obliged to say by way of criticism of his treatment concerns not what he tries to do, but the way he does it.

2. My first difficulty concerns Professor Royce's method. What he proposed, as we have seen, is a definition of the essence of Christianity, the separation from the vast mass of material that our records give us, of the permanent and significant core. How does he go about this separation?

He does not tell us. That is our first embarrassment. Certain negative principles, to be sure, he follows, such for example as the rejection of the dogmatic method which bids us look for our definition of Christianity to the official records and decisions of the church. Nor is he any better satisfied with that modern substitute for the dogmatic method which would identify Christianity with the teaching of its founder as distinct from the later additions which have been made to that teaching by his disciples. In contrast to this he maintains that it was not Jesus alone, but the church which was the founder of Christianity, and that the beliefs about Jesus, which we find in the writings of his disciples, and notably of men like Paul and John, belong of right among our sources and should determine our understanding of what Christianity is.

In all this, it need not be said, the present writer heartily agrees with him. No attempt to understand Christianity which ignores the experience of Christians about Christ can be historically justified. The actual living religion that has made its triumphant march through the centuries is the religion of the living and risen Christ.

My difficulty with Professor Royce begins with his account of what Christianity means to the church. He picks out three ideas as of fundamental importance for the Christian religion: the idea of the church, or the beloved community; the idea of sin, or the moral burden of the individual; the idea of atonement, or the saving deed through which this moral burden is lifted off. In these three he believes that the genius of Christianity may be expressed and its permanent contribution to humanity defined.

I believe with all my heart that the three ideas named are of fundamental importance for the Christian religion, and I think we who are theologians *ex professo* owe to Professor Royce a debt of gratitude in having reëstablished them in the place of central importance from which some contemporary theologians have been tempted to dethrone them. But it is not easy to see why these three should have been singled out to the exclusion of others (*e. g.*, the incarnation and the deity of Christ), which hold quite as prominent a place in the New Testament, and have maintained their place through the later centuries among the most cherished and sacred convictions of Christians. Why should one be taken and the other left? Surely only because when tested by the modern man's standard of value they have been tried and found wanting. But this testing Professor Royce nowhere undertakes. They are condemned without a trial. The case against them goes by default.

3. And this leads me to consider, in the next place, Professor Royce's positive interpretation of the Christian religion. That religion, as he tells us, is in its essence a religion of loyalty. It is loyalty to the beloved community which is itself the community of the loyal. This community deserves allegiance and justifies our hope in its final supremacy, not simply because it is the company of the morally perfect, but because through its principle of loyalty it makes atonement possible. It is the community that has come into existence through a deed of salvation so original, so satisfying, so perfectly adapted to the social situation as to make the impossible possible, the unpardonable sin pardonable, and reconcile the traitor himself to his own shame as the occasion of so notable and admirable an achievement.

In all this there is much that is admirable upon which one would like to dwell. In his emphasis upon the place held by the church as the company of the loyal; in his redefinition of love in terms of loyalty; in his psychological account of the genesis of sin as due to the inherent contrast between the principle of self assertion and the claims of the social standard; in his interpretation of atonement as the supreme expression of the work of the creative artist love—in all this Professor Royce has not only

given utterance to vital truths with prophetic insight, but has, I believe, recovered aspects of the Christian experience which for the time being have fallen too much into forgetfulness. This is especially true of his treatment of original sin and of the atonement.

But the purpose of this paper, I take it, is not so much to record points of agreement—many and important as these are, or to compliment Professor Royce on the many felicitous phrases with which he has illuminated the various phases of his subjects, as to point out those aspects of his treatment which raise questions in the mind of his reviewer, in the hope that these doubts may be resolved in the discussion that follows.

And the first thing which I miss in Professor Royce's treatment of Christianity as a religion of loyalty is any adequate definition of the object which calls forth loyalty. That there must be such an object he clearly sees. That the early Christians believed that they had found it he repeatedly asserts, but in the transfer of essential Christianity from its ancient to its modern domicile one cannot help having the suspicion that in some mysterious way this important part of the Christian's household furnishings has been dropped by the way.

There are three different answers which we may give to the question, To what does the Christian owe allegiance? We may say, he owes it to Jesus Christ, the founder of the Christian community; or we may say he owes it to the church which Christ founded; or still again, to the unseen God who reveals himself in and through both as the ultimate object of loyalty. In a very real sense all three of these entered into the experience of the primitive Christians. Professor Royce makes place only for the second, or at least so fuses it with the first and the third that they cannot be distinguished from it.

In this he claims to be following the early Christian example, which identifies the spirit of Christ with the spirit of the community, and both with the spirit of God. There are, he reminds us, two distinct meanings which the word, Christ, has to the Christian. In the first place, it stands for the historic Jesus, the human individual who lived and taught and died in Palestine,

the giver of the parables, the teacher of brotherhood, the master and friend whose story the gospels record. But in the second place, it stands for the divine being who became incarnate in Jesus and who lives on as the inspiring spirit of the community he founded. Professor Royce is quite right in emphasizing the fundamental importance of the second of these aspects of the Christian belief and insisting that no definition of Christianity can be adequate which leaves it out. But the first seems to interest him little. Whether Jesus was what he claimed to be; whether there was any human individual deserving the confidence which his disciples put in him; whether the author of the Fourth Gospel was or was not right in his conviction not simply that the Word was made flesh, but that the Word was made flesh in Jesus, seems to Royce of small importance. It is not Jesus, after all, who was the founder of Christianity, but the church which saw in Jesus that Christ who was at the same time the immanent law of its own higher life. It is not Jesus then to whom the Christian is loyal, but the church, or what comes to the same thing, the spirit who is at the same time the spirit of Jesus and the spirit of the church.

But this is only to push the question one step further back. What is this church to which the Christian is to be loyal, and what is the evidence that it is worthy of devotion? To this question the early Christians gave a very definite answer. It was the empirical community of which they were members, the community that Jesus had founded to be the organ of his spirit, and the evidence that it deserved this loyalty was the fact that his spirit was actually present in its midst imparting to its members spiritual gifts and justifying their faith in their ultimate conformity to his image.

But for Professor Royce this early judgment was mistaken. There is no church anywhere to be found which deserves the name of the beloved community. There is only the idea of what such a church must be if it is to deserve our loyalty. "‘Create me,’ that is the word which the church, considered as an idea, addresses to mankind" (p. 54).

But whence is the dynamic to come which is to make this

creation possible? It was not Jesus who created the church, we are told, but the church which created Christianity, including our picture of Jesus. But now it appears that the church itself is in need of a creator. Whence is the needed help to come? Who is to create the church, or, since the idea of the church is already in existence, whence came that idea, and what is its promise for the future?

It would seem natural to us that it came from God. God is the real creator of the church, as he is the ultimate explanation of Christ; He is the unseen Spirit who is at once the ideal and the dynamic of its realization in history. Here at least would seem to be the unifying concept of which we are in search.

And indeed there are passages in *The Problem of Christianity* which seem to point in this direction. More than once we find the author identifying the spirit of Christ with the church, and both with God, (e. g., pp. 202, 409). And in the final constructive volume the synthesis between the community and God is complete. The church, the beloved community, the company of the loyal is itself God, the only God apparently for which Professor Royce has room in his re-definition of Christianity.

But is this really an adequate account of what God means to the Christian? What we need in our God; what the early Christians found in theirs, is a *creator*, but the God of Professor Royce is still to be created. He exists in idea indeed, as the beloved community which calls forth the loyalty of all the loyal. But he exists in idea only, awaiting his realization in that world of the concrete and the individual we call history.

Whatever this conception of God may be, it is surely not Christian. The Christian God is the God who is realizing his will in history; first in the person of Jesus, then in the faithful who have come under the spell of his spirit. He is a God whose nature can be known, in part no doubt, but truly so far as known; through the revelation made through Jesus, the God who can be described as love, because he has wrought a great deed of atonement, and who because he is love and demands love in others, calls forth and deserves loyalty.

My criticism of Professor Royce's treatment of Christianity,

then, is twofold: first, that he unduly simplifies Christianity by identifying three conceptions which, however closely related in Christian experience, must ever remain distinct, namely, God, Christ, the church. Secondly, that he empties loyalty of its highest significance by treating it as an end in itself irrespective of the object which calls forth loyalty. (Cf. especially his treatment of the unpardonable sin). It is true that loyalty as Royce defines it is more and other than love, but it is also true—and this is a distinct tenet of Christianity—that it is because Jesus lived and inspired love, in the sense in which Royce distinguishes it from loyalty, that he deserves loyalty. Loyalty in the abstract may lead, no one can tell whither, to militant imperialism as well as to Christian self-sacrifice. That loyalty only deserves the name Christian which is inspired by the type of ethics which finds its most signal, if not its only historic manifestation, in Jesus Christ—the ethics, I mean, which assigns to the individual an independent worth and function as a son of God, with his own peculiar place and responsibilities in the divine family. It is because the church, however imperfectly, is really trying to realize that kind of ideal, and for that reason only, that it can be associated with Jesus as the object of Christian loyalty.

It would seem, then, that in spite of his promise Professor Royce does not give us any real philosophy of history, for history means progress toward an ideal, and for progress Professor Royce's treatment of Christianity leaves no room. An ideal indeed he gives us, but so abstract and empty of content that it can be fitted into almost every conceivable type of experience, and for that reason affords us no standard of judgment by which we can measure the existing conflicts which give zest and pathos to the strifes and failures of the real world. Why this should be; what relation this method of approach has to the type of philosophy of which Professor Royce is so distinguished a representative, is a question which would carry us beyond the limits of the present discussion into regions which, however interesting and fruitful, do not primarily concern us here.

But I would not end upon a note of criticism, but rather with

the renewed expression of the debt of gratitude which I personally, in common with all my colleagues, owe to Professor Royce for his stimulating and searching investigation of a subject matter with which we are so intimately concerned. In these days when so many are defining Christianity in terms of an ethics without religion, it is well to be reminded of those deeper and more metaphysical truths, without which ethics alone would lose its driving power.

In conclusion, I should like to suggest the following questions, the answers to which will tend to clear up the doubts to which I have ventured to give voice:—

1. What is the method by which we must determine what part of the beliefs of a historic religion like Christianity justify their place in universal religion?
2. What is the relation of the ideal community which is the object of loyalty to the existing institutions of society?
3. Where in the modern world can we find the leadership which justifies loyalty?
4. In what sense does Professor Royce give us a God distinct enough to be communed with and good enough to be worshipped?

WM. ADAMS BROWN.

UNION THEOLOGICAL SEMINARY.

ROYCE'S INTERPRETATION OF CHRISTIANITY.

STUDENTS of theology, whether historical theology or constructive, have reason to be grateful when a philosopher of the eminence of Professor Royce turns his attention to the Philosophy of Religion as his most vital field of enquiry, and to the history and significance of Christianity as the most essential problem in this field. Professor Royce himself interprets to us his title *The Problem of Christianity* when in his opening chapter on "The Problem and the Method" he declares (p. 10): "Whatever the truth of religion may be, the office, the task, the need of religion are the most important of the needs, the tasks, the offices of humanity." He describes himself on the succeeding page as "one to whom the philosophy of religion, if there is to be a philosophy of religion at all, must include in its task the office of a positive, and of a deeply sympathetic interpretation of the spirit of Christianity, and must be just to the fact that the Christian religion is, thus far at least, man's most impressive view of salvation, and his principal glimpse of the homeland of the spirit."

My friend and fellow-theologian Professor Brown has the responsibility, as I understand the matter, of determining with what success Professor Royce in his second volume, bearing the subtitle *The Real World and the Christian Ideas*, has fulfilled this task of assigning to Christianity its true place in the Philosophy of Religion. I for my part am to render as sincere a verdict as I can upon the preceding volume, which has as its subtitle *The Christian Doctrine of Life*. This volume in fact contains all that we have of that preliminary survey of the history and psychology of religion in its Christian form which must precede any competent interpretation and valuation of it.

Were I to commit the indiscretion of anticipating the verdict of Professor Brown, by giving full expression to my sympathy for the Roycian philosophy of Absolute Voluntarism, and especially for the doctrine of Loyalty as the foundation of Ethics and Religion, and were I thereafter to advance my criticism of

this exposition of the teaching of Jesus and of Paul as summarizing religious history and psychology respectively, I might place Professor Royce in the unfortunate predicament of that eminent artist-literateur who was understood to be a great artist among critics of literature, and a great literateur among critics of art. I shall not commit the indiscretion. Still I may premise that I began the reading of *The Problem of Christianity* with a deep conviction that the Philosophy of Loyalty, as it has come to be called, was both true and Christian in its most essential features, and that I concluded my reading of the present volumes not with admiration alone, but with a deep feeling of gratitude for the effort of a great constructive philosopher of our time to find his philosophy—not arbitrarily, not by doing violence to historic truth, but honestly and sincerely—in the teaching of Jesus and of Paul.

The late eminent colleague of Professor Royce, in his *Varieties of Religious Experience*, has made perhaps the most distinctive American contribution to philosophy in the field of the psychology of religion, having especially in view Christianity and more especially still the psychology of Paul. Theologians surely have reason to be grateful to William James. Similarly the most eminent ecclesiastical historian of our times has sought to answer the question What is Christianity? by a survey of its history. Harnack will not be reckoned a convert to the *religionsgeschichtliche Schule* because he applies his knowledge of church history to New Testament problems, any more than James to the exponents of Paulinism because he applies his knowledge of psychology to the conversion of Paul. But both are most welcome in the field just because they bring to it the more or less specialized judgment of an expert in other fields. A Blass, a Ramsay, a Percy Gardner, a Reitzenstein, a Norden, a Cumont—New Testament philology and archaeology are not unconscious of their debt to such guests as these, and how many still greater names might be cited from the domain of philosophy, who have made Christian theology their temporary home!

Such guests have special aptitudes and special limitations. A biblical critic need not be in entire agreement with Harnack's

Beiträge nor even accept Harnack's idea of what constitutes the true essence of the religion in its historic development, to be appreciative of *Das Wesen des Christenthums*. For my own part I observe with satisfaction Professor Royce's emphatic dissent from Harnack, and his sympathy with Loisy, the exponent of French modernism, in the conviction that, "the Christian religion always has been and, historically speaking, must be, not simply a religion taught by any man to any company of disciples, but always also a religion whose sense has consisted, at least in part, in the interpretation which later generations gave to the mission and the nature of the founder."¹ One may anticipate more from the historical survey of a student of the philosophy of religion when his conception of the essence of Christianity is progressive and dynamic, than from the ecclesiastical historian when the point of view taken is merely static, like that of so-called 'nineteenth century liberalism.' The doctrine of the progressive Christian consciousness as the 'seat of authority in religion' was not an exclusive discovery of Newman, nor a monopoly of the Roman modernists. We who count ourselves modernists in a wholly suprasectarian sense may well be glad that a philosopher of the type of Professor Royce should look to 'the higher social religious experience of mankind' rather than to the experience of individual geniuses, no matter how eminent, as exhibiting 'the central idea' of religion. We should not, however, be surprised at his taking this standpoint.

Without trenching on the province of Professor Brown I may therefore express at all events my hearty sympathy with Professor Royce's statement of his problem, and with the viewpoint he proposes. His 'mode of approach,' as he terms it, has this in common with the apologists, that it postulates the supreme effectiveness of Christianity in the 'endeavors of mankind to bring to pass, or to move towards, the salvation of man,' and aims to present 'a sympathetic philosophical interpretation'

¹ I, p. 29. Cf. II, 1. 366, and Preface, p. xxi: "The Pauline communities first were conscious of the essence of Christianity. Consequently those are right who have held, what the 'modernists' of the Roman Church were for a time asserting . . . that the Church, rather than the person of the founder, ought to be viewed as the central idea of Christianity."

of this 'effective' religion. On the other hand it avoids the most objectionable features of an *ex parte* apologetic, inasmuch as the interpreter assumes the largest liberty to treat as obsolete almost indefinitely extensive domains of traditional Christianity.¹ Professor Royce's Christianity is that of the Pauline churches as reflected in the great historical Pauline Epistles of practically undisputed authenticity; hence he has, as he puts it, "no legends to defend from critical attacks."² Even his Paulinism is "not of the letter which killeth, but of the spirit which giveth life." The 'genuine modern man' to whom he introduces us in his closing lectures, as the one for whose benefit they are written, is one who having fully accepted Paul's doctrine in its exact historical sense is magically transported down the ages to our own time to learn, without contact with our Christianity, all modern science, history, and philosophy. To such a 'modernist' Pauline teaching must in large degree seem obsolete. The contrast between ephemeral form and perennial substance would assume to him its acutest phase. He would be equally unable to deny the real historical sense of the teaching of the first century, the historical facts of the intervening time, and the scientific truths of the twentieth century. In remaining loyal to essential Pauline Christianity, such a 'modern' would resort to no theory of allegory such as Philo's, to vindicate the infallibility of his erstwhile teacher. He would realize, however, that in the application made by Jesus and Paul of their own great religious intuitions to the beliefs and conceptions of their time they were using an unconscious symbolism, like prophets of a continuous 'social' consciousness searching what manner of time the Spirit which was in them did point unto.

It is the function of the philosophy of religion to translate this *unconscious* symbolism of the past into modern speech. Myth, legend, institution and observance, are the modes of expression instinctively seized upon by the intuitions of religious genius

¹ Preface, p. xxvi. "I must decline to follow any of the various forms of traditionally orthodox dogma or theory regarding the person of Christ. Legends, doubtful historical hypotheses, and dogmas leave us, in this field, in well-known, and, to my mind, simply hopeless perplexities."

² II, 373.

before philosophy has elaborated its dialectic. The translation must be made, but it is well to preserve the original; and before it is made the original terms must be understood not merely in context, but in perspective. Here the history and the psychology of religion must do their part. Criticism must effect its unsparing analysis of the records, and trace the development of ideas; psychology must make its own diagnosis of the psychic experiences. Only when this process is complete can the philosophy of religion give its reasoned valuation of what the past has handed down. This it is, then, which will be naturally understood in philosophic terminology by the Problem of Christianity. The words which Loescher applied to the fixation of the canon of sacred Scripture may be extended to cover these forth-puttings of the religious instinct of the race: Christianity itself came into being, *non uno, quod dicunt, ictu ab hominibus, sed paulatim a Deo, animorum temporumque rectore.*

Criticism of Professor Royce's historical and psychological survey of the Christian consciousness is doubly disarmed, first by his modest disclaimer of ability "to decide problems of the comparative history of religion,"¹ and secondly by the frankness with which he acknowledges a quasi-apologetic aim. It is quite important to realize just what is meant by this.

Apologists of the type of Hugh Miller and of my own revered teacher of geology at Yale, James Dwight Dana, are quite a well-known type to us of the older generation. Professor Dana's class-room interpretations of the first chapter of Genesis still abide in my memory, and these and their like call forth today a kindly smile on the lips of the modern student, whether of Genesis or of geology. The apologist's idea of 'defending' Scripture was so naïvely transparent, so wonderfully innocent of historical perspective. What more sublime evidence of inspiration than that the Pentateuchal story of creation should correspond with nineteenth century geology? What loftier ambition for Moses than to be a teacher of 'modern science'? And if the fruits of Moses's scientific teaching were quite unapparent for three thousand years, until what he had

¹ P. 339.

been vainly attempting to make known was independently discovered, surely the corroboration of his wonderful knowledge was more than compensation for his wonderful inability to convey it. The kind of apologetic which can conceive no greater glory for Scripture than to teach the apologist's own views is familiar since the day Scripture acquired an authority which made Scriptural corroboration a convenience. But if the higher criticism has taught us anything it is that ideas have a history, and must be viewed in perspective. So recently as my own seminary days I believe there was not a theological school in the country that possessed a chair of Biblical Theology, the teaching of Biblical ideas in their historical development. Nowadays we think a school of theology does not deserve the name where biblical doctrines are not set forth from the historical point of view.

Needless to say Professor Royce does not treat the Bible in the fashion of Hugh Miller or Guyot. And yet it is to be recognized that his acknowledgment that he "takes his stand with the apologists, and against the hostile or the thoughtfully indifferent critics of Christianity,"¹ is borne out by the character and contents of the book. It is not the product of a dispassionate critical historian of religion, aiming only at the proportionate consideration of all factors and processes in the field of study. That work of critical analysis and research we must assume to have been performed to the extent Professor Royce's other occupations allowed before he undertook his interpretation of Jesus and Paul. Professor Royce finds a great deal in Paul which must at least be acknowledged to be not apparent on the surface. Others must pursue a similar course before they adopt his conclusions or their own. In the present work, as I have already expressed it, Professor Royce 'goes to find' the religion of loyalty in Jesus and Paul. He does not attempt to deal with all Christian doctrines. He chooses three which impress him as the most vital and essential: (1) the doctrine of the Kingdom of God, or, as he expresses it, salvation through membership in the beloved community; (2) the doctrine of moral inability, or original sin;

¹ I, II.

(3) the doctrine of the Atonement. Not a historical survey of Christianity as a whole followed by a valuation of it constitutes Professor Royce's contribution, but a 'discussion of the meaning and truth of each of these three ideas' which to his mind express its essence. Not even these three ideas are considered in their origin and mutual relation. Admittedly the second, moral inability, or the doctrine of original sin, plays no part whatever in the teaching of Jesus, and the third, the Atonement, is by most critical students of biblical theology regarded as almost or quite equally foreign to the thought of Jesus. Professor Royce thinks he can discover hints or foregleams of this in "the parables."¹ I must confess ignorance of what parables are meant—unless indeed Professor Royce includes what a leading New Testament scholar has well and nobly called 'the last and greatest of the parables,' the never-to-be-forgotten words, 'This is my body which is given for you.' Here we may indeed find a point of departure for the Atonement doctrine of the Church. But I imagine that Professor Royce himself would hardly attribute to Jesus a doctrine of the forgiveness of sins which made it dependent upon his own atoning death. I find it very difficult to imagine any student of the history of this doctrine treating Professor Royce's conception of it as reflecting in any save the remotest way the mind of the Master.

All this does not trouble Professor Royce, because he limits himself to 'the Christianity of the Pauline churches' and does not greatly care to interpret it genetically. Such study as he has given to the question of the history and mutual relation of these chosen ideas is prior to the present work. If he has followed up with Tennant and our own Professor Porter the antecedents of the Pauline doctrine of moral inability and original sin in the rabbinic theory of the *yetser ha-ra'* he says nothing about it, because it is a mere preliminary to his subject. If he has trodden in the footsteps of some of the many scholarly and critical historians of the doctrine of atonement and traced it back with Dalman, Oesterley, and even, I may add, Schechter, to its connection with the Isaian doctrine of the Suffering Ser-

¹ P. 240.

vant,—if he has examined the doctrine traceable in the Hellenistic period of Judaism of the atonement wrought by the Maccabean martyrs and compared it with that of the *Zachuth Aboth* of the rabbis, of this too he finds it needless to speak. This is because his ‘problem of Christianity’ is not exclusively, perhaps not primarily, a historical problem but to an appreciable degree ‘apologetic’; and I think we must understand the word to mean as here employed that Professor Royce to some extent has gone to Christianity, more especially ‘the Christianity of the Pauline churches,’ to find his own philosophy in it. Whether the discovery is real or not will depend upon the thoroughness and impartiality of the historico-critical studies which appear only by implication. If his volume does not produce the unfavorable impression of the typical apologist who notoriously finds in the Bible just what he carries to it, this may be because of the more disinterestedly critical character of these preliminary studies. I am disposed to think it largely is. It may also be, however, to some extent because his philosophy of loyalty was Christian to begin with.

I am not finding fault with Professor Royce’s book, I am defending it. It does not pretend to be a critical survey of the origin and development of the Christian faith, and we have no right to criticize it for not being what it does not pretend to be. Professor Royce wisely avails himself of Harnack’s pregnant distinction between ‘the gospel of Jesus’ and ‘the gospel about Jesus.’ Then with something more than Loisy’s modernism he plants himself firmly on the principle that Christianity is what it came to be, regardless, or almost regardless, of what it had been, or how the development was effected. He can make, therefore, comparatively short work of his historical survey. We have the Pauline Epistles. They reflect at certain angles the three vital ideas and their psychological reaction. What need, then, of any historical Jesus? If the purpose be merely that of finding the philosophy of loyalty somewhere in the beginnings of this most ‘effective’ of religions, why not leap at once *in medias res* about the sixth decade, regardless of whether the Christianity of the Pauline churches has fact or fiction as its

foundation? Why not dismiss entirely those perplexing, laborious historical problems of the relation of the Greek-Christian to the Jewish-Christian churches, of Paul to Jesus, of Christianity as a universal religion of individual redemption, to Judaism as a national religion of social well-being?

As a matter of fact this is very nearly the course which Professor Royce pursues. "This book (he tells us) has no positive thesis to maintain regarding the person of the founder of Christianity. I am not competent to settle any of the numerous historical doubts as to the founder's person, and as to the details of his life. The thesis of this book is that the essence of Christianity, as the Apostle Paul stated that essence, depends upon regarding the being which the early Christian Church believed itself to represent, and the being which I call, in this book, the "Beloved Community," as the true source through loyalty, of the salvation of man."¹ Now if the object is simply to find the philosophy of loyalty in Paulinism, then to be sure the fictitious Jesus of the mythical idealists, A. Drews, or W. B. Smith, will serve the purpose quite as well. Indeed if Van Manen or Van den Berg van Eysingha gives any trouble about the historicity of Paul, then Paul too may take the same road. Rome in the third decade of the second century will do just as well as Greece in 50-60 A.D. for the origin of the Epistles. Questions of Judaism and Hellenism and their fusion in Christianity are really academic if our 'problem of Christianity' is not an attempt to assign to this most effective of religions exactly its true position in the progress of the religious consciousness of humanity. We may deal quite lightly with that great transition from social and national religious ideals to ideals of personal redemption, the transition from Jesus to Paul, if our problem is only to find the Philosophy of Loyalty in the Pauline Epistles. If on the contrary we are studying the transition of civilization in 200 B.C. to 200 A.D. from national religions of various types to the typical religion of personal and social redemption, we have a more considerable task. It all depends on whether we are trying to connect up with the eternal Spirit of Truth whose witness is

¹ Preface, p. xxvi.

world-wide and eternal, or only with the spirit of the Pauline churches.

I have spoken thus far only of the second respect in which Professor Royce disarms our criticism. Pray do not assume that judgment is already passed if I ask that his book be judged for what it professes to be and not for what it frankly acknowledges that it is not. Surely the candid acknowledgment that the 'problem of Christianity' is not confronted here from the strictly impartial standpoint of the critical historian of religion, but more or less in the interest of a particular philosophy, may be accepted without seeming to put disparagement upon the book, or to retract the encomiums uttered at the outset. Let me remind you that I have not said that the author dispensed with that critical historical analysis and research which alone can qualify anyone to define 'the essence of Christianity' even with the limitation 'as the Apostle Paul stated that essence.' I have only said that, whatever expectations might be aroused by the title, this volume does not contain the researches in question and expressly disclaims the effort to present them. They must be presupposed. Our judgment of it from this point of view must be based on what we read between the lines rather than in the lines themselves. Does the author give evidence of a historical appreciation of Paulinism?

Here we may be perhaps a little less ready to take Professor Royce's modest disclaimers *au pied de la lettre* than in the case of his acknowledgement of a method and mode of approach which are perhaps something more, at all events something else, than purely historical. If he has not allowed us to underestimate the extent of his study of Christian origins and of the development of Christian ideas, then we can only say that in this case the largeness of mind and the critical judgment naturally developed by philosophical studies have in considerable degree supplied the place of special research.

Professor Royce, as we have seen, makes no attempt to determine the historical relation between Jesus and Paul. To the question which he assumes to be put by some "kindly critic" whether "the whole meaning of the Christian religion does not

center in the founder, in his life, and in his person," he answers: "This book has *no* hypothesis whatever to offer as to how the Christian community originated. Personally I shall never hope, in my present existence to know anything whatever about that origin, beyond the barest commonplaces. The historical evidence at hand is insufficient to tell us how the church originated. The legends do not solve the problem. I have a right to decline, and I actually decline to express an opinion as to any details about the person and life of the founder. For such an opinion the historical evidences are lacking, although it seems to me natural to suppose that the sayings and the parables which tradition attributed to the founder were the work of some single author, concerning whose life we probably possess some actually correct reports."¹ The Christianity which he considers, therefore, is simply 'the Christianity of the Pauline churches.' In view of this limitation the selection of the three supreme ideas of these churches as (1) Salvation through membership in the Beloved Community, (2) Moral Inability, (3) Atonement, is to me an evidence of great perspicacity and real historical appreciation, however strange the phraseology may sound in our ears, and however we may be on our guard against a choice dictated by other motives than the effort to attain pure historical fact. The fact is, Professor Royce's view of Christianity is—I will not say like a drawing without perspective, but—like a photograph all in one plane. As we have seen, the whole emphasis of critical study for a generation of historical interpretation has been to put these photographs under a stereoscopic lens and draw out the perspective. He disclaims acquaintance with this research and yet in fundamental points coincides with it. May I for a moment assume the task which might properly fall to my colleague in the chair of Biblical Theology, Professor Porter, and apply the stereoscopic lens to what Professor Royce sets forth as the essential ideas of Pauline Christianity?

Of the three ideas named we are probably nearest to genuine Paulinism, and at the same time furthest from all other forms of Christianity both in the generation before and the generations

¹ Preface, p. xxvi.

which followed Paul, in the doctrine of original sin or moral inability. If there is anything in the New Testament peculiarly personal to Paul, based in its origin on his individual religious experience, not derived from earlier Christians and equally incapable even through the logic, the eloquence, the authority of a Paul of being impressed on the succeeding generation, it was his doctrine of the law as the strength of sin, the doctrine which Professor Royce most philosophically develops into a psychology of the moral sense. Yes, if primitive Christianity had cared for the Data of Ethics it might very well have developed a theory from the Epistle to the Romans, and if sufficiently modernized this psychology of the moral sense might very well have come out in the philosophical form Professor Royce has given it. As a matter of historical fact, Romans was taken to be as a whole what in part it really was—merely a polemic against Mosaism. Average Christianity of Paul's time had only a doctrine of Repentance, in which 'dead works' played a part as giving rise to self-righteousness. It had no theory of the origin of conscience. The Pauline dialectic was very real to Paul, and more or less effective against the Judaizers. Of the next generation it is scarcely too much to say with a learned church historian: "Nobody understood Paul but Marcion, and he misunderstood him." There is much to be said for taking the religious experience of Paul as the basis for a psychology of religion, and I wish to acknowledge my own great indebtedness to Professor Royce for his philosophical modernization of the Pauline 'data of ethics.' I fear, however, that when it comes to ranking the doctrine of original sin among the three most vital tenets of Christianity in the Pauline period I shall have to be classed with James and his individualistic mode of approach. Historically speaking, the doctrine of Christianity in the Pauline period was simply the universal need of *Repentance*. Paul's was a 'Variety of Religious Experience.'

Of the doctrine of the Atonement as it appears in the philosophy of loyalty we may say we are more or less reminded of Paulinism, although here we are no longer on peculiarly Pauline ground, but are dealing with an idea expressly declared by Paul to be part of

the common gospel, antecedent to his own preaching, an idea completely obliterated from the Lucan writings and almost completely from Matthew and Mark. As I have intimated, something of the kind is traceable far back in the history of Judaism, though with increasing opposition in legalistic circles. Noah is an ἀντάλλαγμα ἐν καιρῷ ὀργῆς in Ecclus. 44: 17, the blood of the Maccabean martyrs in Second and Fourth Maccabees is an expiation (καθάρσιον) for the sin of Israel, their life a vicarious offering (ἀντίψυχον) for its life.¹ Paul has his own distinctive doctrine of the καταλλαγή, but fundamentally he does not depart from the more primitive view that it is accomplished by the real intercession of an actual mediator who was "raised for our justification" and who in the visible presence of God "maketh intercession for us."² Otherwise "if Christ were not raised" we should be "yet in our sins."³ Translate this semi-mythological form of atonement doctrine into a philosophy of loyalty if you will, with consideration of the irrevocableness of the past, the need of the 'traitor to loyalty' to forgive himself, and the like, all of which may be—to psychological experience—profoundly true; but do not let us lose the Apostle Paul, and those who before him preached the gospel of the Suffering Servant, entirely out of sight in the historical background. Nothing would interest me more than to go into the question of the relation of the Pauline doctrines of Original Sin and Atonement to the common Christian doctrines of Repentance and Faith and the antecedents of both in Judaism; but I must limit myself to the third idea: Salvation through the Church.

As an interpretation of Paul's doctrine of the Kingdom of God I am afraid the "thesis of the book" that "the essence of Christianity as the Apostle Paul stated that essence, depends upon regarding the being which the early Christian church believed itself, and the being which I call in this book, the Beloved Community, as the true source, through loyalty, of the salva-

¹ II Macc. 7: 37 f.; IV Macc. 6: 29.

² Rom. 8: 34; cf. Heb. 9: 11-22 and the intercession of Enoch (Eth. En. xiii-xv.) Noah, Abraham, Moses, Daniel and Job in Jewish literature (Ezek. 14: 12-21).

³ I Cor. 15: 17.

tion of man "¹ would hardly be acceptable to the Apostle Paul himself. An 'essence of Christianity' from which the person and work of the historic Christ disappear entirely would be apt to draw from Paul words somewhat like the following: "There are some that trouble you, and would pervert the gospel of Christ. . . . As we have said before, so say I now again, If any man preacheth unto you any gospel other than that which ye received, let him be anathema." Speaking strictly from the historical point of view, and never relinquishing that stalwart independence which can venture to differ even with Paul, I think we must here take the side of that "distinguished authority upon Christology" and "kindly critic" whom Professor Royce cites in his Preface, who continues to think that the historic Jesus had much to do with Paul's doctrine of the Kingdom of God.

Paul had his own characteristically enlarged and universalized doctrine of the Kingdom. He could not have been an Apostle to the Gentiles if he had not. His doctrine is not only transcendentalized after the fashion of the apocalyptic writers to include "things in heaven and things on earth and things under the earth," "angels and principalities and powers," but it has taken on a strong tincture of Stoicism, the doctrine of the cosmic organism animated by the divine Spirit, the body of Christ, whereof every redeemed soul and body is a member in particular. It is the great merit of Professor Royce's book that it gives us a philosophical valuation of this adaptation of the doctrine of the Kingdom of God under the Pauline mysticism. Nevertheless it is well to remember that there never would have been a Pauline doctrine of the Beloved Community in mystical union of life with its glorified Head, if there had not first been a Jesus obedient unto death in the preaching and service of that Kingdom. We may go further and declare that whatever Hellenized and universalized form the doctrine of the Kingdom assumes in Paul, no stretch of the historical imagination of which I, for one, am capable can ever conceive him as giving assent to a formula wherein the mystical body is everything and the Head of the body disappears from the plan of salvation altogether.

¹ Preface, p. xxvi.

Stoic pantheism may or may not be nearer the truth than Jewish monotheism. That is for the philosophers to decide. We historians of biblical ideas must take our stand upon plain historic fact. Paul, with all his tincture of Hellenistic ideas, was and remained fundamentally a Jewish theist. Idealistic monism may or may not be nearer the truth than the traditional type of Christianity which attaches special significance to the person of Jesus; but actually Paul was not an idealistic monist. He did not hold with Buddhism 'that the very form of the individual self is a necessary source of woe and of wrong,' and was far from indifferent to the character and career of the historic Jesus. On the contrary, Paul expresses his sense of salvation in terms of mystical union with a very definite historical individual. "I have been crucified with Christ, and it is no longer I that live, but Christ that liveth in me . . . the Son of God who loved me, and gave himself up for me."¹ Nor did he lose his own individuality in this mystic union with the Spirit of God in Christ. He believed that he was working out his own salvation, and working with fear and trembling too, even while confident that God was working in him even to will as well as to do. He held with the orthodox Pharisaism of his time which Josephus calls Stoic that 'All things are foreordained and yet freedom is given.'

Nevertheless there is a sense in which, as I believe, even Paul might have endorsed so radical an utterance as this of Professor Royce's, and herein I think we are all debtors to him as an interpreter of Paul's doctrine of the Kingdom. "Not through imitating nor yet through loving any mere individual human being can we be saved, but only through loyalty to the Beloved Community."² The Lord and Christ, by loving and imitating whom Paul is saved, is not a "mere individual human being." He is preëminently the eternally glorified head of the Beloved Community, and it is just because he is no longer a 'mere individual human being,' no longer 'a Christ after the flesh' that Paul can preach salvation in the name of Jesus as one manifested to

¹ Gal. 2: 20.

² Preface, p. xxv.

be the Son of God with power by the resurrection from the dead. We recognize that the Christ whom Paul proclaims as universal Lord, Savior, Deliverer from the impending wrath, Son and Heir of God, is a very different being from the mechanic Jesus of Nazareth. We cannot help perceiving that even the features of his earthly career, as Paul depicts them, are idealized traits, more distinctive of the Suffering Servant of Deutero-Isaiah than of the historical Jesus, and we recognize here a tremendous problem, perhaps the very greatest the historian of religion can confront: How was it possible within that brief period of Paul's own lifetime for the Jesus of history to become the Christ of dogma?

Professor R. H. Charles has shed, as I believe, more than a little light on this great question—more, I think, than he himself realizes—by the observation based on his wide studies of late Jewish and apocalyptic literature, that all the many titles applied to the Messiah, the Saint, the Just One, the Beloved, the Elect, the Son, and the like, are simply the individualized form of the titles which primarily were applied to the Beloved Community. He is their representative, and as such obtains the title in the singular, which was first applied to Israel in the plural. In other words, the messianic hope does not begin with the promise to David: "Of thy seed I will set one upon thy throne. . . . I will be to him a father and he shall be my son." It begins with the adoption of the chosen people: "Say unto Pharaoh: Israel is my son, my first born; let my son go, or I will slay thy son, thy first-born." Jesus is to Christians the Suffering Servant because it is the function of *the people of God* to suffer that it may bring redemption and the knowledge of God to all humanity. Christ became to the first believers the Suffering Servant-Son, because his career had incarnated this national ideal of Israel the missionary and martyr people. Christianity—the Christianity of the Pauline churches—therefore need not cease to be a religion of loyalty to the Beloved Community because it makes salvation dependent on the person of Christ, rather than on membership in the community as Professor Royce assumes. It does not need that detachment from the historic ideals of Judaism nor

from the individual life of the founder which Professor Royce seems to think essential, because this historic ideal of Israel and this typically loyal life of the founder are precisely what give it a tangible and real content, instead of the vague generalities of the ancient religions of personal redemption or of modern idealistic monism.

Unfortunately it is precisely at this point that Professor Royce declines even to consider the evidence, not venturing to hazard an opinion about "the origin of the Church" or "the person and life of the founder." In reality the Pauline doctrine of saving loyalty to the Beloved Community is at least as much bound up with loyalty to this glorified Head as loyalty to the Empire in his time was bound up with loyalty to the genius of Cæsar. We cannot imagine any devotion of emperor worship in ancient or modern times, any consecration of patriotism evinced in love and loyalty to the symbolic person of king or emperor, which can equal the Christian's devotion to his heavenly Lord. He who makes appeal to the Christianity of the Pauline churches as displaying at least the elements of a philosophy of loyalty should take some account, it seems to me, of this tremendous fact; for it is by no means confined to Paulinism, but everywhere the fundamental creed of the Christian is the same. He is saved if he confesses with the mouth that 'Jesus is Lord,' and believes in his heart that God hath raised him from the dead. This faith in a glorified eternal 'Lord' is in Paul's time the one distinctive badge of the Christian, the very hope and ground of his salvation. His citizenship is in heaven, because his life is hid with Christ in God.

It is not the fault, certainly not wholly the fault, of the guest in the domain of historical theology that he has not solved this problem in the history of religious ideas, which yet lies so near to his own line of argument. If we ourselves have not solved it we cannot expect the solution from one who only pays us a passing visit from the domain of philosophy. But the very intuitions of such a guest should inspire us to new research. Professor Royce's book, as I have said, takes but little account of the historical method of biblical interpretation. It can hardly

be called *religionsgeschichtlich*. It presents what it takes to be the dominant ideas of the Christianity of the Pauline churches and presents them all in one plane, practically without perspective. The author does not attempt to tell us how the Pauline idea of saving membership in the Beloved Community stands related to the teaching of Judaism and of Jesus about having part in the Kingdom of God. He does not attempt to relate the Pauline doctrine of moral inability to the earlier preaching of repentance. He does not attempt to explain the doctrine of the Suffering Servant, nor how the Atonement doctrine which he elaborates from Paul stands connected with Jesus and 'the last and greatest of the parables.' In short, he has not done our work for us. It is for us students of the history of biblical ideas, and through them of the history of religion, to solve these problems; and after the coolest, most dispassionate critical research to say whether or not the philosophy of loyalty was 'preached beforehand' in the gospel of Jesus and of Paul.

Professor Royce, as I have said, explicitly declines to attempt an answer to the question which to the historical critic of Christology must, I think, appear the greatest raised by his book: How could the Jesus of Synoptic tradition become so soon the Christ of Paul? It seems to be enough for Professor Royce to observe that he did. The people's rabbi, the prophet and healer of Nazareth, the friend of publicans and sinners, became the center and focal point for the highest human loyalty to the end of time. He was 'declared to be the Son of God with power by the resurrection from the dead.'

Professor Royce hesitates to deal with 'legends.' Legends? I have no more to do with legends than Professor Royce. I will dismiss them with the most radical critic that you can name. I am not asking *what* the psychological experiences were which we call the resurrection manifestations. I am asking *why* they were. Take whatever experiences you choose to posit as those which actually did lead to the confession of Christ as 'Lord.' *Why* were they? How could they produce the most 'effective' religion of the world's history, save for something in the character and career of Jesus the Nazarene? If, as we have reason

to believe, the first experience leading on to all the rest was Peter's, what was the psychology of Peter? Did it merely so happen that the Galilean fisherman and his associates, and the five hundred who soon joined them, were all ecstasies and visionaries? Or was there something in Jesus which fitted him for the part he was to play in their religious experience?

It would be presuming in me to attempt to account for all. But I think that in his philosophical definition of Christianity as the religion of loyalty, whether by research or by intuition, Professor Royce has given us the real key to the psychology of the resurrection faith. 'Loyalty' is the root-idea. Only he should not have called it the "Christianity of the Pauline churches"; for what is most distinctive in it, the doctrine of absolute devotion to the Kingdom, is the doctrine of Jesus. It is the point in which the gospel 'of' Jesus and the gospel 'about' Jesus coincide.

Is it accident only that Professor Royce in one of his rare attempts to define the gospel 'of' Jesus declares it to have been "a religion of whole-heartedness"?¹ That is the very essence of the matter. That, if I mistake not, is the key to Jesus's character and life, and the explanation of that new form of the religion of loyalty which centers upon his person. The unqualified, unreserved, absolute devotion to God his Father and the interests of God's kingdom laid down in Jesus's teaching, lived out to the uttermost in his life, made imperishable by his death, this is the essence of the religion of Jesus, and *as such* becomes 'the essence of Christianity.' This made him the incarnation of Israel's religious ideal. This made his exaltation in the faith of Peter and the rest to the rôle of eternal Lord and Christ a natural and reasonable thing, whereas without it their faith would have been hypocrisy. No visions or apparitions could have made it seem anything else to sincere and religious-minded Jews.

Take, I ask you, the last public teaching of Jesus as recorded in the earliest of the Gospels. Look upon it not as a precept for others but as the key to his own life. A scribe, a teacher of the

¹ P. 229.

law, asks him (asks him, as the reply assumes, in a genuinely sympathetic spirit): "Master, what is the great commandment of the law?" Is there a way to sum it all up? Jesus answered him with the *Shema*', the Credo of Israel, the first expression of whole-hearted loyalty learned by every Jewish boy, the last triumphant confession of every martyr to its faith: "Jehovah our God is *one* Lord, and thou shalt love Jehovah thy God with *all* thy heart, and *all* thy soul and all thy strength." This is the first commandment of the religion of loyalty. And the second is like unto it, and gives direction and content to its whole-hearted devotion: Thou shalt serve the Beloved Community. "Thou shalt love thy neighbor as thyself." We have been accustomed to regard this 'summary of the law' as a rule formulated by Jesus for the conduct of others. He would never have so employed it if it had not first constituted the principle of his own living. The *Shema*' is for the Jew the supreme expression of what he calls the principle of 'the Unity,' an expression not merely of the unity of God, but also of the unity or wholeness of devotion which is God's due from man. Since God is one, no divided allegiance can be acceptable to him. In such a spirit of unreserved, whole-hearted devotion to God and his kingdom, Akiba, the great martyr of Israel in the age of its division from nascent Christianity, breathed his last breath with the *Shema*' upon his lips or, as the expressive Jewish phrase has it, "taking upon himself the yoke of the kingdom (i. e., sovereignty) of God." Jesus, as we have seen, finds likewise in the *Shema*' the full expression of man's ideal relation to God. In combination with the golden rule it summarizes for him religion and ethics together. His life, and even more his death, proclaimed this undivided fealty as the essence of his own inner life. He bequeathed to the church as a blood-stained token 'the yoke of the kingdom of God.' Jesus, then, and not Paul, is the true founder of the religion of loyalty. Because in his life and in his death he had been the incarnation of this principle, he could without sense of strain or incongruity be 'declared to be the Son of God with power by the resurrection from the dead.'

B. W. BACON.

ERROR AND UNREALITY.

THE problem of error comprises two distinct questions, viz.: (1) what is the nature of the mental process when we err and what causes lead to it, and (2) what reality, what status in metaphysics has the object of error, the illusory thing? The former may be called the psychological question, the latter the metaphysical. The psychological question has been often enough answered, and with reasonable unanimity; the metaphysical one has seldom been squarely faced. There seems to have been a feeling that when one explains how error arises he has thereby assigned the status of the erroneous object. That this is not true, a moment's consideration shows. For, no matter how the error may come about, the illusory object is equally puzzling. It is, to be sure, unreal; yet on the other hand, it cannot be unreal, because we are really aware of it. If we are ourselves real and really have a certain relation to an object it is hard to deny that that object is real. The object is effective, makes a disturbance in our minds, and exhibits unmistakable evidence of its presence there. Hence it must *be*. In short, it contains a paradox; and that is what occasions the metaphysical problem.

Now this paradox has long been admitted; and therein is the greater disgrace. For we have here no mere matter of ignorance, where we may excuse ourselves because evidence is hard to get. There lies before us a *contradictio in adjecto*, a fundamental inconsistency which should long ago have been stamped out. No unreal thing can possibly be; for reality means being. The statement that the unreal in any sense is, is a self-destructive one, a direct breach of logic. By all that is decent in metaphysics, there ought to be no such things as errors, mere appearances, or other forms partaking of non-being. As evil is a standing denial of the goodness of God, so error is a standing witness of the unreality of the real. One may think to escape the problem of evil by denying God, but no philosopher dares treat reality in that way. The problem of error he has no means of avoiding.

But until he solves this puzzle, his system breaks the most elementary rules. Let it be brilliantly set forth, full of information, even practically useful, it will be as a noble countenance bemuddled.

Nor does the removal of this blemish promise much in the way of knowledge. To wash one's face before dining may be necessary, but it affords no nourishment. The solution of the problem of error is only the clearing away of a perennial stain; at the end we shall remain unprofitable servants. Still, ardently as we desire to obtain positive knowledge of the plan of the universe, we cannot in honor go forward until this menial task is finished. For our sins we are compelled to labor at it. Yet, I venture to think, we shall find in the end an advantage; if not in new doctrines, at least in casting off certain hampering traditions, and in understanding more clearly the essence of metaphysical inquiry.

The issue, we have said, has seldom been thoroughly treated. Let us then, passing in review the chief theories of error, seek to lay bare their inadequacies, as a basis for our own attempt to solve the paradox.

How can the illusory object be in any sense real? The natural common-sense answer is: 'it is not real but is mental or subjective.' And no doubt it is true that errors are subjective. But this is not sufficient to dispel the puzzle. For if we say that the mental is unreal, then we must admit that our pains are unreal, and our pleasures, our efforts, our emotions; and how can there be mental life at all? No, we cannot say without qualification that the subjective is unreal. Let us then assert that it is real as an *event* but not as a *content*. Suppose I mistakenly believe there is a tortoise on my writing-table. Then there really occurs a conscious process—my belief—and while it is a real event, the object of it, the tortoise on my table, is not something contained in that event. The tortoise on my table is not a member of the subjective world, a psychical entity. If he were so, he would be real; as real as pain or any other subjective thing. He is simply the *object* of my mental process, of my belief. But the object of a thought is not part of or in the thought as a coin is in

a purse. It is somehow related to the thought but not of the same stuff with it. It belongs to the world of non-existing beings.

Thus the common-sense view loses its *naïveté*. It no longer considers the illusory object subjective. It has seen that subjective stuff is as real as any other stuff; and that therefore if the tortoise on the table is not to be real, he must be something neither material nor mental. He must be a citizen of a third country, the realm of unreal beings. This however brings us back to our original problem. For how can anything unreal be? The 'subjective' device has thrown no light on that puzzle, and must be held to have failed.

But not so fast! We spoke of the tortoise on the table as an illusory object. But perhaps we put the matter in a wrong perspective. Perhaps it is not an object at all. It may be quite incorrect to say that error is a belief in an unreal object. Is it not rather the case, that we never believe *in* an object, but believe *that* an object *is* so-and-so? In short, errors are not false objects, but false judgments. We spoke as if an idea could be erroneous; but surely it is only a judgment that can err. There is no such object as tortoise-on-my-table, whether in the real or mental or unreal world. The error consists in the mistaken *reference* of the tortoise *to* my table. It is in my attribution of the beast to the particular environment that the mistake lies. This attribution now is an act of mine and no property of the tortoise, and in this sense the error is subjective. The tortoise is real as a mental content, and the table is real as a physical body, and the error is my act of uniting or relating the two. Thus, it would be alleged, a better analysis of error rehabilitates the common-sense view.

What then is this act of attributing a predicate to a subject? Is it just a mystery of the mind, not further reducible? Now in the case of true judgments, the predication is more than an act of a mind; it is objectively valid. What 'objectively valid' means, depends upon one's metaphysical system; it may mean that the predication corresponds to the real state of things, or that it is itself objectively real. In either case, however, it is more than a mere act; the subject and predicate are really related

as our act relates them. And in false judgments, the maker of the judgment views the subject and predicate as thus really related. To him at the time of judging the judgment is not an act: his state of mind is just as saturated with objective reference as if he were correct. When I believe that the tortoise is on my table, I think reality itself contains that predication or what corresponds to it. As far as my own experience is concerned, I apprehend an objective situation as much when I am wrong as when I am right. In the psychical realm, the mere fact that I seem to see it is enough to make me see it, to call a judgment an act only is an inadequate description. It is an act, if you insist, but an act in which reality, or what purports to be reality, becomes our object. The common-sense solution cannot then escape the difficulty by refusing to admit an illusory object. For judgment is in every case about an object: no less with errors than with truths.

With this the puzzle returns. Where shall we put the precious tortoise? He is really the object of my judgment. Or if you prefer, we can say that his being on the table is the object of the judgment: 'that he is on the table' is the object of my belief. This is the *Objektiv*, as Meinong called it, of the judgment; the content or object which, in Brentano's terms, we accept or acknowledge when we make the judgment. But it matters not whether we speak of the object, the tortoise-on-the-table, or the *Objektiv*, that-the-tortoise-is-on-the-table; in either case we have something which forms the subject-matter of the judgment. And the question is, what status in reality has this 'unreal' entity? If we call it a mental thing, then it is real; if we say it is no mental thing, we must devise some third region, some sort of home for wanderers, which is designed to receive these non-existent beings.

Nevertheless, so inveterate are the prejudices of common sense, that the former alternative will probably still be chosen. Let us, they say, give up the notion of unreality. The tortoise in question is mental, and is quite real; but he is not endowed with physical reality. The error, we may be told, does not lie in his non-existence, but in the confusion of two distinct spheres of

reality. Or, to speak generally, all illusory objects are real, but they are not the particular objects we judge them to be. In our example, there is a real tortoise on a real table, but that table is not the physical table in the space-world. The mistake would consist in the identification of the mental world with the material world. There would be, on this view, no one illusory object—tortoise-on-my-table—but two real objects—tortoise-on-table in the psychical field, and table-without-tortoise in the physical; and it is the attempt to identify these two with each other, that gives rise to error. Now in reply to these statements we have only to recall that the tortoise-on-the-table which we erroneously believe in, is *ipso facto* considered to be a material being on a material desk. The object of the erroneous judgment is not a mental tortoise, but a tortoise with material attributes and in a certain spatial position. You may distinguish as much as you please between the beast and his material predicates, but that is only one side of the matter. They are also identical. The tortoise in question is meant to be, and understood to be, a material entity. He may be as subjective as you wish, but in the subjective world he is a material being. And it is just this paradox that creates the puzzle. Put him into the subjective world and his reality will be of the sort that world gives him. But in that world, viz., in the erroneous judgment, he is given material reality. Or we may state the difficulty in another way. Make the illusory object mental if you will. Then the error consists in the identification of the mental with the physical reality. In which world is now the identity which is alleged in that identification? If in the subjective world, it is none the less real. But if it is real, then there is no error. If you answer, it is real subjectively but not materially, then you must say that the error consists in confusing the subjective identification with the material identification. We have only to reply, where does this confusion reside? If subjective, it is real—and so on indefinitely. To call the error subjective can never suffice to explain the source of its unreality. And indeed this might be seen at the outset. The notion of unreality cannot be generated out of the notion of diverse realms of reality. As well try to derive the notion of a horse from that of different races of mankind.

We saw above that the illusory objects must be put either into the psychical realm or into some metaphysical home for incurables. Such a home has been founded by those who do not favor the subjective as an ultimate category. Different benefactors of this institution have given it different names; we may instance the "unreal subsistence" of Montague, the "heimatlose Gegenstände" of Meinong, the "neutral being" of Holt. What is the nature of this region? Does it possess such a character as to show us how the unreal can yet somehow be?

The first article in the constitution of the new establishment must be "the distinction between reality and being or subsistence."¹ "The universe is not all real" says Professor Holt "but the universe all is."² Thus we are to solve the paradox by discriminating between reality and being. What then is the difference between them? For it is by no means self-evident that there is a difference. The same author says, "Is it not evident that *being real* or *being thought* or *being* anything whatsoever is both a more complex and a more special thing than merely being?"³ Now it is difficult not to think that he is here misled by the linguistic form. 'To be real' adds an adjective to the infinitive, but language is often redundant. If we argue from linguistic expression to meaning, we shall have to grant that the Aristotelian logic is not valid for the Semites, Malays, Chinese, and others who use a differently constructed sentence from that of the Greeks. But the following reason also is assigned: "As to *being real* . . . we know that there is the opposed category of *being unreal*," therefore "Being real connotes more than *being*" (p. 21). Let us grant this point; let us admit that there are multitudes of things that are unreal. But what *is* it to be unreal rather than real and how is it possible? That is our very problem. No definition is given, no light is thrown on the paradox. We are met by a *refutatio ambulando*, but the matter is not explained. The home for incurables seems to be divided against itself. Is it, indeed, anything more than a hell which

¹ E. B. Holt, *The New Realism*, p. 358.

² *Op. cit.*, p. 360.

³ *Concept of Consciousness*, p. 21.

the metaphysician constructs for the purpose of receiving the devils? But how the good God can countenance a hell, or how reality can so far contradict itself as to become unreal, we do not understand.

Professor Holt here takes the bull by the horns and declares that the paradox *need not* be solved. Errors are contradictions, yes: but contradictions may be. In fact, the world is full of them. "Whenever a moving body strikes another and is stopped or turned, the law of its motion is contradicted . . . all phenomena of *interference* are cases of contradiction. . . . At the point of interference the vibratory motions imparted to the ether or to molecules are contradictory to one another, and at that point the wave-motion ceases; and energy is said to have assumed the form of tension. All counterbalancings, as in cantilevers and Gothic vaultings, are contradictory forces in equilibrium. All collisions between bodies, all interference between energies, all processes of warming and cooling, of electrically charging and discharging, of starting and stopping, of combining and separating, are processes of which one undoes the other. And they cannot be defined by the scientist except in propositions which manifestly contradict one another. All nature is so full of these mutually negative processes that we are moved to admiration when a few forces co-operate long enough to form what we call an organism; and even then *decay* sets in forthwith. We call nature everywhere consistent, and yet we admit that life is a mystery while death is none: it is none, because the antagonism of contradictory forces is the familiar phenomenon, while co-operation of forces is relatively infrequent."¹ "Nature is a seething chaos of contradiction" (p. 276). We are not here concerned to deny this. To be sure, these words present a picture of the universe very like to that of the absolute idealist, of whom the above writer is the doughty foe; but one knows that extremes meet. And if one objects to the 'Absolute' that we do not understand how it solves the dialectical contradictions, one may equally object here that we do not understand how nature can be real while it is so self-destructive. A contradiction is a con-

¹ *Concept of Consciousness*, p. 275.

tradiction, whether revealed by an idealist or a realist. We cannot be at peace until we solve it, for we cannot help wishing to solve it. It is no satisfaction to an inevitable desire, to be told we ought not to have the desire. That is but an attempt to put a good face upon the mind's defeat. Once more, then, the problem of error is not solved; it is only put aside.

But there is open a quite different way of approach. It was the illusory object that made the trouble. It is somehow real, and yet it is not. And whether we call it real or mere being without reality it is equally contradictory; unreal being is a contradiction in terms. Now let us have a change of venue. Let us drop the static point of view; let us not speak of the illusory object, as if it were a rigid entity. Remember that objects are but stages in the stream of events; adopt, in short, a dynamic or functional point of view. Error now appears to be, not a static beholding of an unreal thing, but maladjustment. "Any idea," said James, "that helps us to *deal*, whether practically or intellectually, with either the reality or its belongings, that doesn't entangle our progress in frustrations, that *fits*, in fact, and adapts our life to the reality's whole setting, . . . will hold true of that reality."¹ And by implication, an idea, or judgment, which works against our adaptation to the reality, will be erroneous. Surely there is no contradiction here, for there is no entity which is unreal. Error is failure: a real process, as real, unfortunately, as the success which constitutes truth.

What then is the nature of this process? Define the erroneous idea in functional terms, if you prefer; let it be a plan of action, or a tentative reaction upon a part of the environment. Still it is a conscious process. It differs from the incipient reaction of the coiled spring in that it entails some sort of prevision of the anticipated act. If I plan to reach out and cut off the head of the tortoise as an intruder upon my table, my intention cannot be fulfilled; but my purpose to do this is more than the tightening of my muscles and whipping the knife out of my pocket. It is the distinction of consciousness that it reaches forward into the future as well as backward into the past, and a plan of action

¹ *Pragmatism*, p. 213.

is a case of the forward-reaching. The person who entertains the plan has before his mind a deed which is not yet real, and if he is in error, never can be real. As we commonly say, he contemplates the deed. He sees it in his mind's eye. If it can be realized, there is no contradiction; if it cannot be realized, he is contemplating an impossible and therefore unreal object. It matters nothing that the object is his own act rather than an external thing; it is equally contradictory. We find that the paradox returns upon us as before, for we have only translated the whole thing into another language—the language of process and deed. But which is more unintelligible: to contemplate an impossible deed or to be aware of a non-existent thing?

We are not impugning the correctness of the functional theory. It is, we believe, in many ways the best account yet given of truth and error: it is positive, specific, and offers a verifiable criterion of each. But it does not, we submit, go deep enough to remove the inconsistency of an impossible performance, of an unreal reality.

No; there is no way of understanding errors so long as reality contradicts unreality. Well then, let us make a last stand and deny that these two are hostile. Let us say that reality admits of unreality, as light admits shadows; yes, that each interpenetrates and constitutes the other. This is the way of absolute idealism. Every finite object is to a certain extent unreal, each in its own degree. The Whole alone is real; but being the whole, it includes all the parts, and among them, our errors. "The Absolute *has* without subtraction all those qualities, and it has every arrangement which we seem to confer upon it by our mere mistake."¹ Now suppose we admit the main theses of this view. Suppose we agree that science gives only relative truth, that sense-perception is not absolute knowledge, etc. Still what we commonly call error is on a different footing from scientific knowledge or sense-perception. That the planets travel in elliptical orbits may not be absolute truth and may contain some taint of metaphysical error, but it is not at all like the proposition that planets travel in straight lines. That is a

¹ *Appearance and Reality*, 3d ed., p. 192.

scientific error. And my perception of the tortoise on my table is a perceptual error. In these cases it is not merely the partiality, the finiteness, of my knowledge that renders it false, but the positive attribution of a particular predicate to a particular subject which contradicts it. Error is not merely partial knowledge or ignorance but the appearance of something which is not even present as a part of the world. Taking a broader point of view does not lead to its inclusion, its metaphysical rescue, but to its rejection. As Mr. Bradley says, "the problem of error cannot be solved by an enlarged scheme of relations."¹ And Mr. Bosanquet makes the same point: "Now in 'factual error' there is, in addition to such abstraction, hostility, *contradiction* by its conditions, from which abstraction has been made."² Absolute idealism is thus confronted not merely by appearance, or what we may call metaphysical unreality, but by a very special sort of appearance, or factual error. We can, in a way, understand that a broader point of view will solve the contradictions of the former. To be sure, as Mr. Bradley himself urges, we cannot understand it in detail, but we can see in a general way how it is possible and necessary. But as regards factual error, which is our own present problem, we cannot see even in a general way how it can be considered real. It *must* of course be real, but it is impossible to see how it *can* be. The tortoise on my table must in some mysterious way both be and not be. We may grant that the absolutist proves that this opposition is in the Absolute necessarily solved. We may assent to his words when he says "The one-sided emphasis of error, its isolation as positive and as not dissoluble in a wider connection—this again will contribute, we know not how, to the harmony of the Absolute."³ But inasmuch as "we know not how" we are no better off than when we started. The paradox of a non-existent existence remains. Of course, if this were only a case of ignorance on our part, it would be tolerable enough, for we could hope for added knowledge. But—to repeat what we said

¹ *Op. cit.*, p. 195.

² *Logic*, 2d ed., I, p. 383 footnote.

³ *Ibid.*, p. 195.

earlier—it is a flat contradiction. It is to the metaphysician's world what sin is to the moralist's; it is something which by all the rules of the game ought not to be.

We believe, then, that the metaphysical problem of error is as yet unsolved; and that being so, it becomes our duty to attempt its solution. Why did the above answers seem to fail? Because they were confronted with two mutually destructive attributes: real and unreal. The shallower views tried to hold the combatants apart by putting them into different realms—the subjective and objective; the deeper views saw the futility of this, and allowed them to fight, but were fain to extract a degree of comfort from the spectacle. And in the end no one has made peace between them. It appears that there is only one resource remaining. One of the contestants must be slain, dissolved, analyzed away. As this cannot be the category of the real, it will have to be that of the unreal. If we could believe that there are no unreal things, the contradiction would be solved. This is indeed a heroic remedy; for it is to grant reality to everything, to the content of wildest imaginations, of the most insane delusions. Can we possibly carry through so desperate a programme? Let us see how it works out.

Our first assertion shall be, that there is nothing unreal; or better, everything is real. Everything then which is an object of thought is real. Anybody will grant that perhaps it is real in the subjective world, or in some 'subsistent' world; but we ask, how can those worlds be unreal? They cannot; nothing *can* be unreal, for that is a contradiction in terms. To be an object of thought is to be related in a certain definite manner to some mind; and if the mind is real and the relation is real it is difficult to see how the term which is related can fail to be real. A real man cannot really hang from a non-existent rope. What then is the logical consequence? Why, that every illusory object is real—for it is the object of thought when one errs. Then the tortoise on my table is after all real. But further he is real not merely in the subjective world, but in the physical world. For it is of him as being physically real that I think, when I make the error. The very gist of the error is that he is a physical tortoise

on my physical table. But it seems as if we had gone too far; for wherein is any error left? Now comes our second or counter-assertion, without which the first would be futile. The error consists, not in my belief in the tortoise, but in the denial which, in my mind, goes with that belief. I take the tortoise's presence to exclude the presence of whatever else is there—be it a book, a pencil, or just air. It is in the denial of that fact or object that the sting of error lies. Error entails denial of some fact; it is a belief in the non-existence of something. This kind of a being, a negation, and this alone, can without inconsistency be unreal; for it is not, properly speaking, an entity, but a case of non-entity. And with this, we suggest, the paradox of error is solved.

Now we should here prefer to illustrate and test our view empirically; but the chief source of opposition to it will doubtless lie—as usual in philosophy—in certain presuppositions deemed metaphysically necessary, rather than in evidence drawn from particular cases. Hence it is better to consider first some of those presuppositions.

Perhaps the initial objection will be, that the reality of the tortoise cannot be admitted, because it conflicts with that of the book, inasmuch as both are referred to the same place. Two bodies, we shall be told, cannot occupy the same space. And if we presume to deny this apparent axiom, the reply will doubtless be 'Nonsense!' But nonsense is a relative term. To the ordinary Euclidean mind it may well seem nonsense that parallel lines should meet; but we know nowadays that the famous 'parallel-axiom' is really no axiom at all. There is nothing contradictory in their meeting. And there are intelligible systems of geometry in which a straight line is not the shortest distance between two points. Indeed, the great service which modern mathematics has rendered to philosophy lies, I think, not in its ability to prove philosophic truth, but in the freeing of the human imagination from its belief that this and that so-called axiom is *a priori* necessary, and that to deny it would be self-contradiction. It is, or should be, a commonplace in philosophy today that (as Kant early discovered) the principle of

contradiction is infertile to account for any specific fact. And why is it infertile? Because no specific fact has a specific contradictory opposite. Physical incompatibility Sigwart says we find; but even this incompatibility would be better named separation. Our eyes do not see red and green together, but why might there not be such an eye? Some people, it is alleged, see red in olive-green. And why should not some one construct a geometry containing the postulate that two bodies and no more may occupy the same space? And another geometry in which three might, and so on? There are no rules forbidding it. So we are driven to say that no error compels us to deny a truth. We think it does, because we are the slaves of habitual perception; but after all, reason has thrown off many a heavier yoke. One might fairly estimate our advance from savagery by the number of possibilities we are willing to admit. The more primitive the mind is, the more is excluded. In the field of practice, Professor Baldwin has recently brought this to our notice. "Primitive man" he says, "is governed by an elaborate system of rules, rites, and mystic observances, which know no exceptions and show no mercy. We are accustomed to think of the 'natural man' as a sort of primitive 'individualist,' free from our social conventions, and roaming at his own sweet will in the broad fields of life. But the very reverse is the case. Primitive man is a slave, subject to unheard-of severities, brutalities, terrors, sanctions, persecutions, all represented by detailed rites and ceremonies that make his life a perpetual shiver of dread. . . ."¹ And a similar phenomenon seems verifiable in the sphere of beliefs; both in the race and in the individual. Primitive man is conservative, and youth is conservative. Ability to take the point of view of other people, to consider novel suggestions, unaccustomed hypotheses, is a late acquisition of civilized life; and is almost the prerogative of maturity and old age. Then history of science is a case in point. How unwilling was the mediæval mind to consider the proposals of the astronomers and physicists! The more do we pride ourselves—and justly—upon our increased toleration of all ideas. Now it is simply the logical

¹ *Genetic Theory of Reality*, p. 46.

conclusion of this increase, that we come to the position here advocated, and admit that everything is not only possible, but compossible. No statement, and no fact, contradicts any other statement or fact; provided the latter is truly other, or about another.

Do we then abolish contradiction entirely? By no means. Having once made a statement, one may not deny it; in this sense alone do contradictions ever occur. They are, truly analyzed, always of the form 'A is B' versus 'It is not true that A is B.' But the denial of 'A is B' is never forced by another judgment 'A is C.' No predicate C contradicts another predicate B. It is usual to say that only propositions can contradict each other. But this is, we suspect, not seriously meant; for it is tacitly believed to be the hostility of the predicates which *makes* the propositions conflict. Thus, 'this figure is square' is alleged to contradict 'this figure is round' only because 'square' and 'round' are supposed to be incompatible. But this incompatibility is just what we deny. The true contradictory of 'this figure is round' is not 'this figure is square' or 'triangular' etc., but 'it is not true that this figure is round.'

So extreme, we may say so violent a statement, needs however some care in the interpreting. Squareness cannot contradict roundness, *unless* you have already defined 'square' by your particular system of geometrical postulates, in such a way as to exclude 'round.' In Euclidean space, which we usually take to be the space of our perception, we do so define it; the mutual exclusion is involved in the postulates of our space. And therefore, when we are talking in terms of that space, to say 'that square is round' is, by definition, to say 'that square excludes squareness' which amounts to saying 'it is not true that that square is square'—a self-contradiction. If you agree beforehand that your terms are understood as mutually inconsistent, then of course your illusory object, the round square, is non-existent. But that is because it is not even an object of thought, but a denial of such an object. It is not a figure with two positive qualities, round and square, but a square (or a circle) which is erased as we try to picture or conceive it. Yet apart from

Euclidean geometry, who would say that a system of postulates might not be devised which would enable squares to be round, circles to be triangular, etc., etc.?

Consider also another pair of alleged opposites; one, too, which has played no mean part in the strife of philosophers—to wit, sameness and difference. Many thinkers have taken for granted that these two contradict each other. Two things, they say, cannot be the same and yet different. The famous ‘dialectic,’ in fact, turns upon this assumption. Messrs. Bradley and Bosanquet define contradiction as the identification of the diverse. Now this is dogmatism. It cannot be proved by analysis, since the situation is too simple to be analyzed; it rests upon no evidence of experience, since experience presents to us a complex of sameness-in-difference. If what is self-contradictory cannot be real, it would therefore seem that sameness-in-difference is not self-contradictory. Surely this is more natural than to declare that sameness *must* contradict difference, and therefore the world we see is infested with non-being!

Or take another, and even harder, instance. Does it not seem to be an absolute *a priori* contradiction to think of a body moving in two directions at once? And we certainly have no empirical scientific grounds for believing in such monsters. But that seeming inconsistency is due to the fact that in waking life in our space we do not see such things, and we impart that habit into the very nature of body as such. In dream-life, however, we frequently experience a doubling of identity, both in persons and things; and this is somewhat analogous. Our friend A.B. is our friend C.D. as well as himself, and we are not surprised. And dream-life is of course quite as real as waking life—only it is not usually considered to be numerically the same life.

No two qualities or properties considered in themselves contradict each other. A thing indeed cannot both *be* and *not be*; so speaks the law of contradiction. And the corollary of it is, that a proposition should not be asserted and then denied. But a thing can have any predicate X you please and then at the same time any other predicate Y you please—always provided you have not already defined X as the non-existence of Y, or conversely.

The next metaphysical *reductio ad absurdum* of our view may perhaps be this: if all things thought of are real, there is no way of distinguishing the illusory object from the non-illusory. The term 'real' is so general as to have lost meaning. Should we not have defined it before venturing to employ it in the large, loose manner above used? Now this objection is one of a kind which must always confront a wholesale view. Subjective idealism, for instance, has to furnish a criterion between the subjective and the objective, absolutism between reality and appearance, pragmatism between practical and theoretical needs, and so on. And so we must in our turn account for the distinction between the book that is on the table and the tortoise that we erroneously assert to be on it. Now what are the properties of each? When I blow across the table the book will hold down a piece of paper while the tortoise will not. The book weighs, say, two pounds, the tortoise weighs nothing. I can open the book, but I cannot open the tortoise. It is like the old example of the real and imaginary dollar. The former will buy something, the latter will not. To be sure, Kant declared that the two differ in no describable way; but surely that was because he considered them abstractly, merely by themselves, and not in the concrete situations of life. In short, the illusory objects have no consequences, the other objects have. It makes no difference whether you accept the tortoise or not; you try to act upon him and nothing can be done. You can go through the motions of dissecting him, but those motions alter nothing and are not affected by his presence or absence. Now these seem to be the facts of the case, and we are indebted to the pragmatists for having pointed them out. The illusory object, then, is real enough, but it is not effective; it is not creative, it produces nothing, and is not affected by anything. We can imagine it producing something, and then it does so; but the productiveness goes no further than our judgment pushes it. The non-illusory object, however, takes the game into its own hands, and affects the environment and the future course of events whether we go on to predicate them or not. The difference is one of fertility or coherence. Errors are the drones, facts are the workers. But the one class is just as real as the other.

Here we may be accused of philosophic partisanship. In defining the erroneous as that which does not cohere with the remainder of our world, we seem to have chosen the idealistic theory of truth. And *ipso facto* we seem to reject the (realistic) independence-theory. Now it would be a pity if our results hung upon the solution of so difficult an issue. As a matter of fact, however, the independence-theory could easily assimilate our view. However much independence there may be between the parts of our world, there is always enough system in any given case for us to test truth and error by it. There is no 'reality' so isolated that it does not belong in *some* context; and in the actual working we estimate its 'reality' or 'unreality' by comparing it with that context. An alleged hallucination we compare with the physical world; a faint odor, challenged, we attest by repeated sniffing; a sum of a column of figures we add up in reverse order; and so on. Everything that we commonly call real, whether physical, or psychical, or spiritual, or conceptual, has enough connections in its own field for us to be able to verify it by examining those connections.

But to return. There is not the least need of distinguishing reality from unreality in order to distinguish truth from error. We are here confronted, I believe, by a superstition as injurious as it is deep-rooted. Unwittingly we judge reality after the analogy of human rivalries, competition, the struggle for food. As there is not enough provender for all, we vie with one another for it; one person's satiety is another's want. So we think that there can be no reality without a correlative unreality; as if the supply were limited. Notwithstanding the fact that modern society is ever more earnestly attempting to abolish this exclusiveness, we have it too thoroughly beaten into us to be able easily to dislodge it. In social theory, lovers of peace that most of us are, we should not dare to uphold such an ideal. But in metaphysics it seems to do little harm, for metaphysics has come to have little bearing upon the rest of life; and the presence of the superstition passes unnoticed. The result for metaphysics is contradiction, just as for practical life it is pain. But, as the simple-minded Parmenides taught, Being is and non-Being is

not. There is enough of Being to supply all, without taxing some into giving up their share.

Another rather fundamental objection is this: our view would rule out an old and respectable tradition which believes in degrees of reality. For if unreal being is a contradiction in terms, there can be no slightest lessening of the fulness of being in any instance. An abstraction like a perfect circle would be as real as the sun, or the Roman empire, or God. But our view, with its all-or-nothing attitude, misses the richness and the graded quality of reality—as do all wholesale, downright views. Moreover, if unreal being were an inconsistency then so is dim light; for that is light which is not all light. But I answer, there is a distinction of kind between degrees of light and degrees of being. Whatever has non-being must first be, as the substance is prior to the accident. It makes no difference how small the degree of non-being, that non-being is still the real negation of being—which is the same as saying a real nothing. It is self-contradictory: the *fons et origo*, indeed, of self-contradiction. To be sure, some say that *nothing* is a real entity—an existing thing. It would be just as true to say it was not: for *nothing* is a self annulling thing, naturally. But neither statement gives warrant for the assertion, that positive objects are infected by nothingness in such wise as to reduce their reality. There can *be* all the nothings you wish, but they do not eat into and partially destroy the being of any particular object. Of light, now, the case is otherwise. An object which is partly dark must *be* in order to be dark; but there is no contradiction between being and darkness. It does not have to be lighted in order to be dark. But non-being has to be in order not to be. And the doctrine of degrees of reality—which is, I believe, a valuable doctrine—loses none of its worth if for reality we substitute some other term, such as perfection, or complexity, or what not.

Let us now examine a practical objection. Suppose one grants that everything he imagines or conceives is real: then see the result! As he walks in the morning to his office, there happens into his mind the idea of a bloodhound in pursuit of him. Dashing forward at top speed, he loses hat and bag, colliding with

passers-by, only to turn suddenly at a right angle because the thought of an advancing mastodon has arisen in his brain. So the poor man will proceed through his day, suffering dreadfully from an enlarged conception of reality. We may begin by describing his malady as auto-suggestion but we must end by confining him as a lunatic. A *reductio ad absurdum* of our theory, indeed. And yet I believe the victim might have escaped this fate. Admit everything to be real, yes: but remember also that some objects are fertile of consequences and others are not. Our friend need only realize that illusory objects are absolutely irrelevant objects; they contradict nothing and they produce nothing. They are the waste products, the dung of the universe. And when one tries to adjust himself to them his deeds are futile and irrelevant to the business of life. But these are terms of practice. Insanity, in short, does not mean a group of erroneous beliefs; it is not a theoretical, but a practical category. However many absurdities enter one's head, yes, however many of them he believes, so long as he is able to repress the tendency to act upon them and attends to the 'realities of life' as we call them, he is adjudged sane. And as matter of fact, it is the lot of most men who are thought mentally sound to own a goodly share of these suppressed beliefs. Who would be willing to confess all the idiotic thoughts, the shameful suggestions more than half credited, that pass through his head in a day?

We have said that everything positive is real, and we called negations alone unreal. But is not negation a genuine attribute of things? White is not red, you are not I, time is not space, etc. Without negations, reality would be featureless. And in the instance above discussed, it is absolutely essential that we recognize that the book on my table is not the tortoise and the tortoise is not the book; each retains its particularity by negation of the other. Now in one meaning of negation, it is doubtless quite real, viz., in the meaning 'other than.' This is the predicative or relational use, as in 'white is not red,' 'the book is not the tortoise,' 'you are not I.' But there is another use, whereby it is taken to mean denial of existence or of truth; as in judgments like 'there are no centaurs,' 'no men are perfect,'

'nothing is better than wisdom' or 'there is no tortoise here.' In these examples, certain things are commonly understood to be excluded from reality; but such exclusion, such non-existence, is for our view not a fact. Non-being is not; reality excludes naught from itself. We do not, then, claim that there are no true negative judgments. But every negative judgment, correctly put, is of the form 'A is other than B.' 'There is no book here,' means 'what is here is other than a book.' 'No men are perfect,' should be interpreted 'all men are other than perfect.' 'Nothing is better than wisdom,' we should restate as 'wisdom is better than anything else.' Our analysis may be illustrated by reference to the old fallacy: "nothing is better than wisdom, but dry bread is better than nothing, therefore, etc." Here the mistake consists in taking nothing to be an entity, whereas if the propositions were understood in our sense, this could not occur.

The above objections are perhaps the more prominent of those which rest upon certain metaphysical assumptions. Others indubitably there are; but some of them at least will be dealt with if we pass to the application of our theory in specific cases. Let us then proceed to this, the real test of our proffered solution.

We begin with some errors of sense. I judge a distant bush to be three feet high when it is 'really' four feet high. Here I perceive a real three-foot bush. To be three feet high is a property of that four-foot bush. The bush has, indeed, potentially an infinite number of heights besides the four-foot height. Any object, we may say, spreads like a grease-spot; by which we mean that it stands ready to take on an endless number of attributes, relations, etc. Its properties are infinitely infinite, as great in number as the point-continuum, which surpasses the denumerable infinity by the infinity of irrational fractions and transcendental numbers. It is like an area, or a finite line, in its inexhaustibility. Even common sense admits a vast wealth of predicates to any one thing; but our view goes much farther. And of all these properties, how few, relatively, are the effective ones, those which alone common sense considers real! It is like nature's lavish production of eggs in some of the lower species.

Out of a million eggs, two or three perhaps are strong enough to survive; the rest are, biologically, as if they were not. The biological law thus appears to be but one case of a wider law; a law by which reality itself puts forth, with infinite prodigality, an inexhaustible number of attributes of each object. So the bush may *be* of any height you please; but, in the case we have designated, our apprehension of all of these but the four-foot height is incompetent to enable us to deal with the thing. The apprehension which gets that particular height is the one which helps us to understand the other qualities of the bush; for that height of four feet is the quality by which the bush takes its place in the environment, the quality which coheres with the other 'real' qualities. As we noted above, in this matter of 'coherence' our view resembles idealism and pragmatism. But while these two say that reality *is* coherence or effectiveness, we make reality a wider, richer thing, which displays such a boundless creativity as we find in two of its chief categories, space and life. We include in it the abstract, the partial, the insignificant. And in fact it is difficult to see how any metaphysic can do otherwise, for the unreal, the finite, etc., *are*, and the appearance *really* appears, and the abstraction *is actually* abstracted; so that we always have to say 'the unreal really is.'

But let us take up some more errors of sense. Suppose that I see two objects where there is one. Here the duplicity is real and does not conflict with the unity. The same remarks may be made as above in regard to the effectiveness of its unity and the ineffectiveness of its duplicity. And of course we shall declare that there is no contradiction in a thing being one and at the same time two. Perhaps this may be easier admitted than some of our declarations, inasmuch as there seem to be many instances of this sort. The same person is one and two, for he is quite a different being to his friend from what he is to his enemy, etc. And the difficulty about the same body occupying two places has been already treated. The judgments made by the color-blind offer, I think, nothing in principle not yet discussed. They are either denials—'that object is not red' or substitutions 'that object which you call red is brown.' The denial

has no object, but is an attempt to remove a suggested object: the red color. Hence it offers no positive unreal content. The substitution must be admitted true, but does not contradict the vision of the normal eye, because no color precludes another color. Time-illusions are perhaps more interesting, though logically analogous to the preceding cases. The misdating of an event seems flatly inconsistent with the fact; but there is no *a priori* reason why a given event should not happen at any number of different times. The postulates which govern the nature of the time we perceive, are no more sacred than the postulates of Euclidean space. Of course, we may be told that a different date makes a different event, because the environment will affect the event. Had the death of Cæsar, *per impossibile*, happened in 500 A.D., it would have occurred in a very different manner. This we may admit; but if sameness does not contradict difference, it might also have taken place in the original Roman fashion. On our principles the reality of no one specific object interferes with that of another; therefore, no particular event at any particular date can be considered unreal. The distinction between illusion and fact must be conceived in terms of efficacy.

In certain psychological experiments the subject perceives the sensory stimulations in the reverse of their true order. Surely we cannot deny that here is a contradiction? Is not the reverse inconsistent with the original order in *any* system of postulates? And this case is typical of many. If an object in the dark is illuminated for but a fraction of a second, I may see its parts in the wrong order. Proof-readers often see the interchanged letters of a word as if correctly printed. Who among us has seen the cinematograph reversed, so that people are seen to eat and drink backwards, etc.? Professor K. Pearson suggests¹ that one who left the earth faster than light travels would see history unroll itself into the past. However mechanically impossible they are, such experiences are not inconsistent, either with themselves or with reality. After all, a reversal of order is but a change of position in one or more of the members of the series.

¹ Somewhere in the *Grammar of Science*, I believe, but cannot verify it.

The order ABC is no more adverse to the order ACB, than is the position of B in one place contradicted by its position in another; and that we have already declared to be not the case. In short, time is not irreversible. There may *be* many events that never recur, but they *could* consistently do so. The dogma of the inherent irreversibility of time is an instance of the superstition we are combating throughout this investigation—the superstition that two or more distinct things can be mutually inconsistent.

More difficult than errors of sense, are errors of thought. Thought can take tremendous liberties: its range of objects has no limit that can be designated, for such a limit is passed in thought. If now any object whatsoever is real, all objects of thought are real; and quite independently of our belief or disbelief in them. And there are some hard cases. Suppose, *e. g.*, I imagine that my view of error is erroneous. There my fancy must be true; the *Objektiv*, 'that my view is wrong,' is real. Yet I view the opposite as real. Now how can a theory be right and wrong at once? Is not this a genuine contradiction? Surely this is worse than a body being in two places at once. Yes, it is worse; for it is a flat denial. There is no positive object before me in so far as I say, 'this theory is not true.' It is, so to speak, an attempted destruction of a positive object, *viz.*, of the theory itself. The destruction is however a mere act, having no content; and as it has no content, it is not an unreal entity, but a non-entity. If on the other hand the theory were truly wrong and one should say 'it is correct,' the situation is nearly the same. For there seems a real contradiction between 'the theory is correct' and 'the theory is false,' one of the *Objektive* here must then be an unreal entity. But these are judgments of reflection, not of simple apprehension. Their *Objektive* are respectively 'the theory being true' and 'the theory being not true'; and the latter is just the flat denial of the former, and conversely. The erroneous view, in other words, is just a *denial* of the true view; it has no peculiar content of its own, but is an attempt to suppress or destroy the content of the other. When, then, I say erroneously 'my view is the true one'—provided I confine myself to this proposition and do not go into the details of 'my

view'—there is no positive unreal content before me. In neither assertion about the view itself is there a contradiction between two objects or entities.

Another case is: $3 + 1 = 5$. This is simple. We define 5 as $3 + 2$, and we define 2 as inconsistent with 1, and hence $3 + 1 = 5$ is an attempt to deny our definitions; and that is all it is. It presents no positive object—except it assume a new definition of 3, 1, and 2; but in that case there is no error.

A more serious instance is this: suppose I say 'A is greater than B and B is greater than C, therefore A is less than C.' Or again, 'A is essentially similar to B and B is after C, therefore A is before C.' Many analogous instances readily suggest themselves. Now these are chains of reasoning, and there is implication leading from the premises to a certain conclusion. The difficulty of such cases is that another and positive proposition, put in place of the conclusion, appears to contradict the premises—which are themselves positive. Here then would seem to be an occasion where there is genuine contradiction between two distinct *Objektive*—a possibility our theory had to deny. But we must ask, how does 'A is less than C' contradict 'A is greater than B and B is greater than C'? We answer, only in so far as it contradicts their consequence, 'A is greater than C.' But it is not true that it contradicts that consequence. It is *a priori* quite possible that $A > B$ and $B > A$ are true together. In fact some have defined equality by this property: $A = B$ when ' $A > B$ ' and ' $B > A$ ' together are true. In the number-system we are accustomed to use, and in the systems of quantity that we use, ' $A > B$ ' is indeed so defined that ' $A < B$ ' is not, except in the case of equality, at the same time true. But a different number-system and a different quantity-system are conceivable. Since then 'A is less than C' does not contradict 'A is greater than C,' it does not contradict the premises 'A is greater than B' and 'B is greater than C.' To be sure the question remains: how are we to distinguish the false from the true, if neither contradicts the fact? By the criterion of efficacy, fertility, coherence. Thus: ' $A < C$ ' does not follow from those premises, nor do other

properties of the system in which we are working follow from 'A < C.' The test of the truth of a supposition always is: does it cohere with, explain or follow from the rest of the system to which it belongs? On the other hand, if we make such a judgment as 'A > B and B > C, but it is not true that A > C' there we have a simple negation with no positive content. Comparable to these cases would also be the assertions 'the law of contradiction is false' 'the falsity of the law of contradiction is true' and analogous ones which may easily be devised; they have no positive object, and no unreal entity.

Certain practical instances may seem yet harder to reconcile with our view. Suppose an accused man proves an *alibi*. Are we not justified in inferring that he is not the criminal, on the ground that a man cannot be in two places at once? Surely we do not go so far, in our demolition of *a priori* incompatibles, as to deny that ground! But we do not need to do it. We can make the usual inference; though not from any axiom about two places, but solely on the basis of our own past experience. We have not seen men in two places at once, and we do not expect so to see them. The *alibi* lets the man off, because we have found the property of unique space-occupancy to be the one which fits in with the rest of our experience. It is like our belief in the morrow's rising sun. It would break no law, either of logic or of physics, did the sun not rise; it would doubtless be due to some cause. If some bodies were some day found in two places at once, we should only say that the character of our space had altered. The cases where we base our reasonings on the belief in contradiction, are cases where we expect a certain body of laws to continue. When we say 'so-and-so must be true, otherwise a contradiction!' our words should be, 'so-and-so must be true, because I do not believe the laws and general character of my environment will change.' Most of our alleged contradictions in empirical subject-matter are only cases of strong expectation against the proposed assertion.

But here we run into another practical difficulty. In cases like the above, we make a denial: 'he is not the criminal.' Our theory has urged that denials are not objectively valid, but

are mere acts of rejection. Has 'not' then no objective counterpart? Of course, when it means 'other than' it has one: as 'the grass is not green but brown.' But even when used in a denial, has it not a kind of reality? Let us consider the proposition above stated.

Here it is not enough to interpret the judgment, 'he is other than the criminal'; for he *might*—since no *a priori* axiom forbids it,—be also the criminal. The important part of the meaning is 'it is false that he is the criminal'; and this negation of criminality is objective fact. The prevention of the man's execution is the practical end and that end is attained only if the negation be objectively real. There is then apparently a real state of affairs which *contradicts* the judgment, 'he is the criminal': hence this erroneous proposition cannot have any real object but only an unreal, because contradictory one,—and our view is annulled. And this case is only one of a great class; cases where anything is correctly asserted *not* to be so-and-so. Now undoubtedly both of these statements, however contradictory they seem, represent objective reality. But there is still no logical ground for making the negation mean anything besides 'other than.' 'The man is other than the criminal' is true, and there is really nothing in this to prevent him from being also the criminal. But it alone of the two statements is the one that coheres with and affects the rest. And since men customarily take the exclusive view of these matters, then when we wish to emphasize this otherness-relation, we do it by denying the positive judgment. There is nothing about the real situation that prevents him from being the criminal. We wish him however to have the privileges of the free, and under human institutions he will not have them if the error is endorsed. So we exclude the error. But the affirmation of the truth does not truly need the exclusion of the error. We are so under the yoke of the exclusive habit that we feel that the exclusion alone guarantees the true. But fact contains no exclusions, no denials, only affirmations.

Doubtless there are further instances of error which appear to provide a *reductio ad absurdum*; but it is bad method to parade too many objections. Let us rather conclude our account by a summary statement and pass to the consequences for meta-

physics. Our theory rests upon two propositions. First, there cannot be any unreal object-matter or content; everything positive is real. An unreal being—no matter how slight the degree of unreality—is a contradiction in terms; there are none such. We should condemn nothing as ‘appearance,’ ‘abstract,’ ‘non-being,’ etc. This is, we believe, the first great commandment of metaphysics: Being is and everything that is at all is Being, and non-Being is not. The second support of our position is a sort of counterpart of the first, yet not, I think, deducible from it, viz., no two distinct entities contradict each other. This is perfectly general: ‘entity’ here means thing, property, relation, proposition,—any category or object whatsoever. The only contradiction in the universe is flat denial, viz., ‘A is B’ *versus* ‘it is not true that A is B.’ The view which we have proffered is the logical product of these two principles. If everything is in its own right real, and if its reality does not conflict with anything else’s reality, then illusory objects are, metaphysically speaking, absolutely real. They differ from so-called real objects in the fact that they are not effective or fertile. And we have tried to show that though this view seems at first hardly less than insane, yet it deprives us of no principles that are of the least value. Unreality is not a category that is needed or used for either practice or theory.

But, after all, to what purpose is our theory? Has it that fertility which, according to its own account, it should have if it is true? We have proposed to substitute for the old pair ‘real and unreal’ the couple ‘fertile and infertile’; but is this more than a change of words or the avoidance of a formal contradiction? No substantial advantage has yet appeared, no new light upon the structure of the universe or the means of ascertaining it.

We began with the gloomy prognostication that our task was a thankless one. And certainly our solution does not directly suggest any hypothesis as to the make-up of the world. But indirectly I believe it to be of no mean value, and that in two respects; as regards method, and doctrine. As to method, it promotes a certain openness of mind. If all is real, the horizon of metaphysics is vastly widened; many possibilities now straight-way dubbed nonsense and dismissed before they are examined,

will be candidly entertained. In this way the chances of some happy discovery are many times increased. We have heard much, from scientists of repute, about the blessed quality of imagination in science; but imagination in philosophy is hardly so extolled. Other good counsel in abundance is given our philosophers: 'be not abstract but concrete, be empirical, know the sciences, use the exact deductive method, take a broad point of view,' etc., etc.; but who has said to them 'never dismiss an hypothesis on account of its apparent absurdity?' Small progress would have been achieved by the physical sciences if their pioneers had been afraid to venture beyond the common-sense of their time. Philosophy itself would have made little advance, had not our predecessors speculated more freely than we dare to do. We smile in a superior way at some of their flights; but they have the merit of sacrificing themselves to show us what is wrong,—while we are held back by fear of doing the like. Our timidity is also seen in that we hesitate to occupy ourselves with specific questions like the origin of life, the nature of it, the definition of soul and spirit, the chances of personal immortality, the existence of an efficacious God, and so on—all being questions of vital interest, upon which we fear the attitude of science. And be it noted that science itself eschews any decision upon these matters. We confine ourselves to the abstractest possible questions, whose settlement could not be attacked by those who deal with the concrete: such as the dependence or independence of reality on mind, the objectivity or subjectivity of values, of qualities, and the like. Such limitation of our interest indicates a lack of philosophic vitality. Compared with the speculative vigor of Hegel, Schelling, Leibniz, Aristotle, or Plato, it even suggests decadence. We need, I affirm, to be more hospitable to ideas, more generous to welcome the new and strange, even the disreputable, to cast aside the fear of common sense's disapproval. Thus may we inject blood into the anæmic patient.

Naturally, we urge no blind acceptance. Our theory insists, by its very definition of error, that we must test all hypotheses by their fruits. Accept all, but test all. But in a critical age like this the danger is not that we do not test them: it is that we

have too little to test. Not rashness, but poverty of resource, is our trouble.

As regards doctrine our view suggests both a purgation and a more promising line of inquiry. The notion of unreality or appearance must be discarded and the search for a definition of Being abandoned; the only goal worth seeking in this direction is the nature and the principles of the things that are. The distinction of real from unreal is more than a formal contradiction; it is an incubus. It not only fixes upon us certain harassing problems, such as error, appearance, *et al.*; but also, like the advertiser of breakfast-foods, it seduces us into chewing upon something which affords neither pleasure nor nutriment. Our desire, in seeking knowledge, is to satisfy the contemplative instinct or to serve practical ends. Now the definition of Being as over against unreality is generally admitted to promote no practical aims; but it likewise fails to gratify the impulse to contemplation. There is no reason why an object's being real makes it more satisfactory to think about, than its being unreal. There is no more before the mind in case of reality; for reality is no added content or quality. There is just as much *stuff* for the mind to be exercised upon in either case. The reason why reality appears to be more satisfactory to the mind than illusion, is that it has been understood to *mean* more. It has been understood to mean, *e. g.*, a persisting universal, a fulfilled purpose, a material force, etc. Is it not obvious that it is the *character* which is hereby presented us, not the *reality*, that makes it acceptable? For a reality which had no identifiable *properties* would be no more than the old thing-in-itself, and as profitless. Let us then extirpate the notions of unreality, appearance, non-being, out of philosophy.

Of course it sounds exact and subtle to distinguish between being, reality, existence, subsistence. Yet there are false subtleties; and certainly these cannot be distinguished in any such way as has been usual. There are no degrees, no stages, no shades, in Being. The usual differentiation is based upon introducing the notion of unreality, as when it is said that being is less real than reality or subsistence than existence or existence than reality, etc. Now one may undoubtedly define these

terms as different; for instance, one might use existence to mean physical reality, subsistence to mean conceptual reality, or psychical, etc., etc. Different *regions* in the universe may be thus marked out. But one of these is as real as another. The question, whether an apparition is real, is truly the question, whether it is physical; whether, that is, it has potencies and connections which affect, or are affected by, the other things we call physical. We never genuinely raise the question, whether anything is real; but rather, whether it belongs in this or that context.

The result of taking metaphysics to be the search for ultimate reality—even apart from gratuitous troubles and profitless distinctions,—is that it becomes an abstract, indifferent sort of pursuit. Reality is, at the narrowest, a very wide genus; and a definition of it always does, and I think always must, have no bearing upon the species within that genus. Still less does it connect with the subspecies and the particulars. If reality means, say, independence, or *percipi*, or object of will, or stimulus, etc., the question so far remains untouched, how there come to be different independent objects, different percepts, various sorts of will-objects, etc. The difficulty Plato had in deriving the subspecies and the individuals from the Ideas, has been repeated without cessation, in the protracted efforts of philosophers to get from their definitions of Being an understanding of the things that have it. The metaphysical ultimate has no discernible effect upon the details, the particularities, to which it applies. Now reality is a genus and a whole (or an Individual if you wish) but it is also composed of parts and specifications; and a philosophy which seeks to know but the former of these is only a half-philosophy. That our professional thinkers today should be contented with any principle which is so abstract and fruitless, is, one cannot but fear, a sign of enfeebled interest in reality. Reality is not an abstraction, but is things, relations, universals, etc. These are reality, and all these are real. Reality, in fact, is *as such* and *qua* real, naught that is unique or investigable; so our view has taught us. Let us drop the abstract metaphysics and return to the study of the principles that govern the things that are.

W. H. SHELDON.

REALISTIC ASPECTS OF ROYCE'S LOGIC

THAT ultimately a realistic position is taken in philosophy, even when one attempts the opposite, and that this Realism is not limited to the acceptance alone of an existential world of physical and mental entities, has been, in the writer's opinion, exceedingly well shown by Professor Josiah Royce in an essay with the title, "The Principles of Logic," in the volume entitled, *The Encyclopedia of the Philosophical Sciences: Logic*, 1913. Professor Royce would probably not accept this judgment as to the outcome of his demonstrations. However, that this judgment is correct I shall endeavor to show by quoting and discussing certain paragraphs. Professor Royce's essay will be examined in this way, both because it is a most timely and excellent presentation of recent results in the field of modern logic, and because of what seems to be its bearing on philosophical problems and their solution. The meaning of the passages quoted is not altered by their removal from their context.

The essay is divided into three sections. The last two, making up the greater part of the essay, are (p. 67) "devoted to indicating very summarily, the nature of a doctrine of which the traditional General or Formal Logic is but a part, and, in fact, a very subordinate part. To this doctrine the name 'The Science of Order' may be given. It is a science which is indeed incidentally concerned with the norms of the thinking process. But its character as a normative doctrine is wholly subordinate to other features which make it of the most fundamental importance for philosophy. It is today in a very progressive condition. It is in some notable respects new. It offers inexhaustible opportunities for future progress."

Defining Applied Logic, or Methodology, as that "special and very extended part of 'Logic as a Normative Science' which deals with the norms of thought in their application to the methods used in various special sciences," Professor Royce says: "Methodology, taken in its usual sense as a study of the norms

and methods of thought used in the various arts and sciences, is the mother of logic taken in the other sense hereafter to be expounded. For the undertakings of Methodology lead to certain special problems, such as Plato and Aristotle already began to study, and such as recent inquiry makes more and more manifold and important." "They are problems regarding, *not* the methods by which the thinker succeeds, nor yet the norms of correct thinking viewed as norms, but rather the *Forms*, the *Categories*, the *Types of Order*, which characterize any realm of objects which a thinker has actually succeeded in mastering, or can possibly succeed in mastering, by his methods."

Discussing some of the solutions of the problems of method as they have occurred in the development of philosophy, he cites (p. 71) the view of Plato, that (1) "*The realm of the Universals or 'Ideas' is essentially a System*, whose unity and order are of the first importance for the philosopher; (2) *Inference is possible because truths have momentous objective Relations*, definable precisely in so far as the process of inference is definable; (3) *The 'Order and Connection' of our rational processes*, when we follow right methods, *is a sort of copy of an order and connection which the individual thinker finds, but does not make*. One thus sets out to formulate the right method. One discovers, through this very effort, a new realm—a realm of types, of forms, of relations. All these appear to be at least as real as the facts of the physical world. And in Plato's individual opinion they are far more real than the latter."

Professor Royce then says (p. 72): "We are not in the least concerned to estimate in this discussion the correctness or even the historical significance of the Platonic Metaphysic,—a doctrine thus merely suggested. It is enough to note, however, that even if one sets aside as false or as irrelevant all the principal metaphysical conclusions of Plato, one sees that in any case the Methodology of the logician, even in this early stage of the doctrine, inevitably gives rise to the problem as to the relatively objective order and system of those objects of thought to which the methodologist appeals when he formulates his procedure. The Platonic theory of Ideas, Aristotle's later theory of

Forms, the innumerable variations of the Platonic tradition which the subsequent history of thought contains—all these may or may not be of use in formulating a sound metaphysic. But in any case this comes to light: If a logician can indeed formulate any sound method at all, in any generally valid way, he can do so only because certain objects which he considers when he thinks,—be these objects definitions, classes, types, relations, propositions, inferences, numbers, or other ‘principles,’—form a more or less orderly system, or group of systems, *whose constitution predetermines the methods that he must use when he thinks.*¹ This system, or these systems, and their constitution, are in some sense more or less objective. That is: What constitutes order, and what makes orderly method possible, is not the product of the thinker’s personal and private caprice. Nor can he ‘by taking thought’ willfully alter the most essential facts and relations upon which his methods depend. If any orderly classification of a general class of objects is possible, then, however subjective the choice of one’s principles of classification may be, there is *something* about the general nature of any such order and system of genera and of species,—something which is the same for all thinkers, and which outlasts private caprices and changing selections of objects and of modes of classification.”

And again Professor Royce says on the same point (p. 73): “Order is order. System is system. Amidst all the variations of systems and of orders, certain general types and characteristic relations can be traced. If then the methodologist attempts to conduct thinking processes in an orderly way, he inevitably depends upon finding in the objects about which he thinks those features, relations, orderly characters, upon which the very possibility of definite methods depends. Whatever one’s metaphysic may be, one must therefore recognize that there is something objective about the Order both of our thoughts and of the things concerning which we think; and one must admit that every successful Methodology depends upon grasping and following some of the traits of this orderly constitution of a realm that is certainly a realm of facts.”

¹ Italics mine.

In all these quoted statements Professor Royce seems to the writer to accept very directly and unconditionally the *objectivity*, not only of entities that are ideal and general and abstract, but also of those that are logical. Thus he opposes the dominant and traditional view that logic is 'subjective,' and is, in this sense, the 'art of thinking,' and that the 'laws of thought' are laws of a psychological process.

From the quotations given it would appear that all logic, including the traditional narrow logic of classes and of the syllogism, is objective, and is only one of the several types of order.

There follows, in Professor Royce's essay, an exposition of some of the most important features of The New Logic, especially as this includes 'Order-types.' In these sections such subjects as Relations and their 'Logical Properties,' Classes, Series, the Correlation of Series, Functions, and, finally, 'The Logical Genesis of the Types of Order,' are presented in considerable detail, and the following interesting statements, bearing upon specific points, are made (p. 97): "Relations are of such importance as they are for the theory of order, mainly because, in certain cases, they are subject to exact laws which permit of a wide range of deductive inference. To some of these laws attention must be at once directed. They enable us to classify relations according to various *logical properties*. *Upon such properties of relations all deductive science depends. The doctrine of the Norms of deductive reasoning is simply the doctrine of these relational properties when they are viewed as lawful characteristics of relations which can guide us in making inferences, and thus Logic as the 'Normative Science' of deductive inference is merely an incidental part of the Theory of Order.*" Thus the *implicative* relation, the progressive discovery or guidance of which is identical with, or accompanies our correct reasoning processes, is held to be objective. Reasoning, as defined in this manner, has its conditions. Did these not subsist, there might still be a 'world,' and this 'world' might be knowable, but we could not reason about it. For, says Professor Royce (p. 107): "Without objects conceived as unique individuals, we can have *no Classes*. Without classes we can, as we have seen, define *no Relations*,

without relations we can have *no Order*. But to be reasonable is to conceive of order-systems, real or ideal. Therefore, we have an absolute logical need to conceive of individual objects as the elements of our ideal order-systems."

With all this, excepting only a seemingly implied dependence of the individuality of 'individuals' upon their being conceived as such, I can agree. But at this point, as in other places, Professor Royce seems to retract his earlier introductory assertions of the objectivity of the logical situation, and to color these now with an idealistic tinge. He introduces the thin edge of a wedge for his idealism even more noticeably, but quite as unnecessarily, in the statement (p. 108) that "*Apart from some classifying will, our world contains no classes.*" One may very well ask, then: *How about the class of Wills that classify? Is this, as a class of individual wills or will-acts that are related and so ordered in a certain way, itself dependent upon a classifying will? And, if not, may not other classes, and the individuals, the relations, and the order, by virtue of which they subsist as classes, be equally independent of a classifying will, although related to it?*

Professor Royce's 'proof' or demonstration that Individual, Relation, and Class are 'the Forms,' or Categories, that "characterize any realm of objects which a thinker has actually succeeded in mastering, or can possibly succeed in mastering," is contained in the Section on "The Logical Genesis of the Types of Order." His proof is the familiar one of finding that a proposition is 'presupposed by its own denial.' But in applying this test or criterion he again seems to pass from the earlier acknowledged objectivity of logical entities to a somewhat surreptitious introduction of an idealism that does away with this. Professor Royce's demonstration and the principle on which he makes it can be granted in the specific instance chosen. But one cannot allow either the limitation of the principle to this instance or the conclusions which he draws from this specific demonstration. Some of the main points of his demonstration are as follows (p. 131):

"(1) To any 'mode of action,' such as 'to sing' or 'singing' (expressed in English either by the infinitive or by the

present participle of the verb) there corresponds a mode of action, which is the contradictory of the first, for example 'not to sing' or 'not singing.' [Thus, in this realm, to every x there corresponds *one*, and essentially *only one*, $\bar{x}$."

"(2) Any pair of modes of action, such for instance as 'singing' and 'dancing,' have their 'logical product,' precisely as classes have a product, and their 'logical sum,' again, precisely as the classes possess a sum. Thus the 'mode of action' expressed by the phrase: 'To sing and to dance' is the logical product of the 'modes of action,' 'to sing' and 'to dance.' The mode of action expressed by the phrase, 'Either to sing or to dance,' is the logical sum of 'to sing' and 'to dance.' These logical operations of addition and multiplication depend upon triadic relations of modes of action, precisely analogous to the triadic relation of classes. So then, to any x and y , in this realm, there correspond xy and $x + y$."

"(3) Between any two modes of action a certain dyadic, transitive and not totally non-symmetrical relation may either obtain or not obtain. This relation may be expressed by the verb 'implies.' It has precisely the same rational properties as the relation $<$ of one class or proposition to another. Thus the mode of action expressed by the phrase, 'To sing *and* to dance,' *implies* the mode of action expressed by the phrase 'to sing.' In other words 'Singing *and* dancing,' implies 'singing.'"

"(4) There is a mode of action which may be symbolized by a o . This mode of action may be expressed in language by the phrase, 'to do nothing,' or 'doing nothing.' There is another mode of action which may be symbolized by 1 . This is the mode of action expressed in language by the phrase 'to do something,' that is, to act positively in any way whatever which involves '*not doing nothing*.' The modes of action o and 1 are contradictories each of the other."

Professor Royce finds further (p. 134):

"(1) That the members, elements, or 'modes of action' which constitute this logically necessary system Σ exist in sets both finite and infinite in number, and both in 'dense' series, in 'continuous' series, and in fact in all possible serial types."

"(2) That such systems as the whole number series, the series of the rational numbers, the real numbers, etc., consequently enter into the constitution of this system. The arithmetical continuum, for instance, is a part of the system Σ ."

"(3) That this system also includes in its complexities all the types of order which appear to be required by the at present recognized geometrical theories, projective and metrical."

In conclusion, Professor Royce arrives at a position which he calls 'Absolute Pragmatism,' and which he holds "differs from that of the pragmatists now most in vogue." He says (p. 121): "There are *some* truths that are known to us *not* by virtue of the special successes which this or that hypothesis obtains in particular instances, but by virtue of the fact that *there are certain modes of activity, certain laws of the rational world, which we reinstate and verify, through the very act of attempting to pre-suppose that these modes of activity do not exist, or that these laws are not valid.* Thus, whoever says that there are no classes whatever in his world, inevitably classifies. Whoever asserts that for him there are no real relations, and that, in particular the logical relation between affirmation and denial does not exist, so that for him *yes* means the same as *no*,—on the one hand himself asserts and denies, and so makes the difference between *yes* and *no*, and, on the other hand, asserts the existence of a relational *sameness* even in denying the difference between *yes* and *no*."

"*In brief, whatever actions are such, whatever types of actions are such, whatever results of activity, whatever conceptual constructions are such, that the very act of getting rid of them, or of thinking them away, logically implies their presence, are known to us indeed both empirically and pragmatically; but they are also absolute. And any account which succeeds in telling what they are has absolute truth. Such truth is a 'construction' or 'creation,' for activity determines its nature. It is 'found' for we observe it when we act.*"

With the general tenor of Professor Royce's essay I am in closest sympathy, and it is only to certain restrictions and conclusions that exception must be taken. One can accept even the specific instance which the application of 'proof by denial'

furnishes, namely, that the 'modes of action' 'to assert' and 'to deny' are themselves instances which conform to and presuppose the logic of classes, of relations, of logical products, of series, etc. However, to the author of this book this is not proof for the idealistically tinged conclusion, that this logic is in some way created by 'will,' for example, by the will 'to assert' and 'to deny,' or that individuals, classes, relations, order, etc., are in some way dependent on 'will.' This idealistic tendency is exhibited in the statement, previously quoted, that 'Apart from some classifying will, our world contains no classes.'

Modes of action such as are those of willing, of affirming and denying,—and especially of *finding* that denial presupposes the very thing denied, may indeed present a specific existential case of entities that are individual, are similiar, form classes with sub-classes, have logical products, etc., and form series that are infinite, and either discontinuous, dense, or continuous. *But this does not imply that any of these generic entities as such, or that any instance of them, such as the real numbers, points, and physical objects, is created by 'will,' or dependent on it.*

The ground for this assertion is the generally recognized principle, accepted by Professor Royce himself, that if there is one 'instance,' it is always a permissible hypothesis that there are others. Perhaps, indeed, 'instance' means or implies just this possibility. It follows, that, if there is one 'instance,' namely, of acts of 'will' which form *classes, series*, etc., that the possibilities cannot be denied (1) that there are *other instances* of these generic entities, and (2) that *these generic entities themselves also are*, that is, *have being*. However, if there are these possibilities, there are also the further ones, (3) not only that these other instances of individuals, classes, series, etc., may be independent of that particular series which is identical with acts of will, but also (4) that the generic entities, class, series, etc. may be similarly independent. In fact, this independence of 'other instances' is itself identical with that of the generic entities. But in any case, even with only the *possibility* implied, that there are *other* instances of series than the will-series, it is logically prohibited to infer the dependence, either of these other

instances, or of the generic entities, *on the will-series itself*. The opportunity for their independence is quite as good as for the opposite. Such an independence is quite compatible with a relatedness of both specific and generic entities to will, to reasoning, or to knowing, and means the *objectivity* both of the general logical entities, class, individual, series, etc., and of all instances of them.

However, one can find not only that this hypothesis of the objectivity of logical entities and principles is permissible and that it is confirmed by empirical investigation, but also that Professor Royce himself really presents no obstacles to its acceptance as confirmed. For the very logical principles which this author himself elucidates and accepts, if they are applied to the specific situation under discussion, themselves demand this conclusion. This can be shown as follows:

Professor Royce makes a number of statements to the effect that 'rational will,' 'modes of action,' 'reasoning,' 'the making of conceptual constructions,' and 'the getting rid of them,' etc., each 'presuppose' or 'logically' imply that logic which is identical with classes of individuals that stand in one or another, or in many, of several relationships, and that form one of the several kinds of series, etc.

Although neither 'presuppose' nor 'imply' is defined by Professor Royce, each of these entities is, by his own logic (at least) a relation. This is the case, first, because the *distinction* is made between the act of 'rational activity' (will to reason, etc.) and that which this activity presupposes or logically implies, namely, individuals, classes, etc. 'Presupposer' and 'presupposed' are, then, at least *two*. But, secondly, a relation is defined (p. 96) as "a character that an object possesses as a member of a collection (a pair, a triad, etc.), and which would not belong to that object, were it not such a member." We must conclude, then, that since 'presupposer' and 'presupposed' are two, they are *related*, and that 'presuppose' and 'imply' are the relations present.

The next important question is, Can that which is presupposed or implied be related to, and yet be *independent* of the 'pre-

supposer' or 'implier'? Again Professor Royce gives us the materials for an answer. In his presentation of the several classes of relations as dyadic, triadic, symmetrical and non-symmetrical, transitive and intransitive, etc., he says (p. 99): "*Transitivity and symmetry are mutually independent relational characters.*" This independence is then exhibited by finding instances of the one character *without* the other. Thus the relation of 'greater than,' symbolized by $>$, is transitive, since, if $A > B$ and $B > C$, $A > C$; but it is totally non-symmetrical, since, if $A > B$, this precludes $B > A$. Likewise the relation 'father of' (A is 'father of' B) is also non-symmetrical, yet it is non-transitive, since, if A is father of B , and B is father of C , A is precluded from being father of C : the relation 'father of' does not 'go' from A to C . 'Ancestor of' is, however, both non-symmetrical and transitive. Thus, for example, are symmetry and transitivity demonstrated to be, in Professor Royce's own words, 'independent relational characters.' In any case by the principles previously stated, since these characters are two, that is, a pair, they are *related*: and now they are proved to be *independent*. Therefore it follows, in at least one case, that *relatedness and independence are quite consistent, and co-subsist*.

Here again it must be said, that, if there is one instance of such compatibility, there may be others, and that in no case does relatedness merely of itself imply, necessitate, or carry with it, dependence; nor independence, non-relatedness. Just such another instance, however, may be the important relation, just discussed, of 'presupposition' or 'implication.' That which is presupposed or implied, namely the logic of order, etc., may be related to and yet be *independent* of that which presupposes or implies it, namely, that very rational activity which Professor Royce emphasizes so much.

With this the case, one certainly cannot justifiably assert that (p. 169) "our world contains classes" only because there is the will to classify. One cannot in this manner logically maintain a 'synthetic union' of 'creation' and 'discovery.'

However, in order to confirm empirically this hypothesis, that independence and relatedness are quite compatible, Professor

Royce himself need only have found, if possible, another class and series of individuals which bears the same relation (that of being 'reviewed') to his own investigating mind as do his own rational modes of action. Professor Royce discovers in *these*, quite as Descartes found that either to deny or to assert consciousness is to presuppose it, *a relation that generates a series*. He finds that to review a mode of action is itself a mode of action, and implies *its* possible reviewal in another mode of action and so on, in an infinite series. Further, this series is found to be generated by an asymmetrical transitive relation, and is either discontinuous, dense, or continuous. However, each member of the series is, as Professor Royce himself admits (p. 153) "distinct," and sooner or later there is *that* member of the series which discovers, or is identical with the discovery of, the serial characters of the whole. It is shown by the subsequent study of this series, that, if any specific member drop out, especially any so-called first or last member, the series is no less serial or ordered. The series is both *related* to, and yet *independent* of any member that can thus 'drop out.' Thus that very serial character of the 'modes of action,' which Professor Royce, in order to support his Idealism, would show is created by and depends upon the 'will to act,' is implied by his own logic to be *independent of that individual act or member in which it is discovered*.

But further, that there are *other series* than the modes of action called 'reviewing,' 'noting,' etc., is also admitted, at least tacitly. For our author accepts and explains at some length the *correlation* of series and the functional relationship. Then, at least, there must be series to be correlated, say, by a one-one relation, and each series is distinct from the other. But, related, they are also in their distinctness or bare 'twoness' independent. For, if there must be at least two entities as the condition for a relation, then this relation cannot in turn generate or condition this *minimum* of diversity.

We thus reach, finally, an important conclusion of direct bearing on the problem of the character of the relationship between 'knowing process' and 'entity known,' whether this be existential or subsistential, generic or specific, concrete or

logical and formal, physical or mental. First, there are other manifolds than that of the series of rational will-acts. This is implied by the possibility of series being correlated. With this the case, there must be at least two series. But the manifold of will-acts is a series. Then there must be *other* series with which this is in correlation. Briefly, we must conclude, that other manifolds *are*, or *have being*, and second, that these other manifolds involve one, some, or all of the logical principles that does the series of rational will-acts. Third, as 'other than' and numerically distinct from *this* series, these other series are both independent of, and yet related to it, just as the series of one's own rational 'modes of action' (Professor Royce's for example) are both related to, and independent of that specific mode which is the act of discovery. Finally, there is at least the possibility that all of these ordered manifolds should be related to each other, and yet be distinct, not identical with, and independent of each other.

This four-fold conclusion presents one of the most important parts of that modern logical doctrine which is called Logical Pluralism. It is the direct opposite of that tendency which Professor Royce supports, at least towards the close of his essay, namely, Logical Monism. These two positions together center on what is perhaps the most important problem in philosophical methodology, that, namely, of the compatibility of independence and relatedness. The one answer to this problem, Logical Monism, has, whether it be true or false, conditioned logically the majority of the great orthodox philosophical systems down to the present time. It is an answer that is itself conditioned historically and psychologically in the Aristotelian tradition. The other answer, Logical Pluralism, has had its forebodings, now and then, also all through philosophical development, but its roots strike deepest into that fertile soil for logical research which is furnished by the relatively recent development of the empirical sciences, including mathematics. Only of late has this tradition and tendency come, as it were, to self-consciousness, and its logic been formulated. Professor Royce's essay forms a notable contribution to the formulation and emphasis

of the importance of this new logic or 'Science of Order,' as it may be called. Indeed this long discussion of Professor Royce's essay has been ventured because of its recognition of 'the inexhaustible opportunities for future progress,' both in philosophy and in science, through investigations in this new field. Not so much along the line of continuing to use the traditional logic, as in philosophizing in accordance with the new logic, is there the possibility of philosophical advance in the future; not so much by studying substance and causation, mere classes, and the relations of exclusion and inclusion, will real problems be solved, as by examining the various types and the properties of relations and series, the correlations of series or functions, and the nature of implication and presupposition. The one procedure is full of promise; but the other would almost seem to have exhausted its possibilities.

E. G. SPAULDING.

PRINCETON UNIVERSITY.

NEO-REALISM AND THE PHILOSOPHY OF ROYCE.

THE object of the following brief considerations is not to pass judgment on the value of either of the two philosophies under discussion, but rather to suggest a point of view from which their agreements and differences may appear somewhat more significant than they usually appear to those who approach philosophy from the exclusively epistemologic interest.

If economy of thought be, as Mach and others have it, one of the main objects of science, then philosophic labels like Realism, and Idealism, are among the most useful instruments of thought. But to those who care for accuracy, these labels appear as snares and stones of stumbling—they are apt to hide from us the important differences which separate many of those who call themselves idealists, and the more important bonds which connect realists and idealists. Vital philosophic achievements, we all know, do not grow out of the effort to spin out the consequences of simple formulae such as those which sum up the distinction between realism and idealism, though such formulae may have a decisive influence in giving direction and form to the effort after coherency and system which is at the heart of philosophy. While philosophy, like law, must of necessity always strive after consistency, it is true as a matter of fact that it never completely attains its goal. The very effort after coherency and system is conditioned for any genuine philosophy by its starting point, the actual complex of intellectual needs growing out of the material of the philosopher's world of experience. If this be so, then the suggestion naturally arises, that the fact that both neo-realism and the philosophy of Royce endeavor to assimilate the general results of modern logical and mathematical studies, may be more significant than the attempt to condense the whole of Royce's philosophy into the dictum that the Absolute is the locus of all our meanings, or neo-realism into the doctrine that objects are independent of our knowledge. The fundamental differences between neo-realism and the philosophy of Royce

can from this point of view be traced to their respective attitudes to the problems of religion.

The systematic neglect of mathematics on the part of all great influential philosophies of the nineteenth century is obvious on the most cursory survey. Fichte, Schelling, Hegel, Schopenhauer, Lotze, Mill, Hamilton, Green, Cousin, Comte,¹ Rosmini, all show how social, theologic, and psychologic interests absorbed all attention. Philosophers like Bolzano or Cournot who took the philosophic importance of mathematics seriously, were assigned to obscurity. Now in intellectual affairs, it is difficult to say which is the cause and which the effect. But there can be no doubt that the neglect of mathematics and the prevalence of nominalism and atomism, were intimately connected. This can be seen perhaps most clearly in Mill's logic in which the emphasis on particular 'facts,' 'states' of mind, leads to the complete degradation of deduction (and consequently of all exact mathematics) as a source of truth.² At any rate, whether we take the phenomenalist idealism which comes to Mill from Hume, the so-called objective idealism of the Hegelian school of Green and Caird, or the practical idealism of the Neo-Kantians, we find them all assuming that the world which is our starting point is a brute, disconnected manifold; and while these philosophies differ in the method by which the initial atomism is overcome, they all regard the connections or relations of things as a contribution of 'the mind' to the world.

Now it would take us far afield to indicate all the difficulties resulting from the assumption that mathematical relations or entities like numbers, are mental. But it is clear that this view throws no light at all on the peculiarities of mathematical procedure which distinguishes it from physics or psychology. When a mathematician is investigating the property of a given equation or curve, it is precisely as fitting to tell him that he is looking for the product of his own creation as it would have been

¹ I include Comte because though brought up on mathematical physics, his whole philosophy was controlled by practical demands—due to the influence of St. Simon.

² The exaggerated importance attached to Mill over and above more fruitful logicians like De Morgan and Boole, would not have been possible if philosophers had paid more attention to mathematics.

to have told Leverier and Adams that in looking for Neptune they were looking for the product of their own mind. Hence, when philosophy could no longer ignore the progress of mathematics and symbolic logic, there was bound to be a reaction against the traditional idealism and a preference for the type of realism that followed in Greece close on the first discovery of mathematical method. Russell's *Principles of Mathematics* and the chapter in his *Problems of Philosophy* dealing with Plato's Doctrine of Ideas, seem to me still the most significant expression of the new yet essentially Platonic realism.¹ There have, to be sure, been other motives for neo-realism besides the mathematical one, *e. g.*, the natural reaction against the sweeping claims of psychologism, expressed with such admirable self-control by von Meinong. But it is significant to note that the one doctrine which all the six authors of Neo-realism press in their book is the non-mental character of logical and mathematical entities. In thus emphasizing the objectivity of the relational structure of the real world, neo-realism takes itself completely out of the scope of Professor Royce's dialectical objections against realism, which will be found on close examination to be all arguments against dualistic or atomistic realism that is incompatible with the linkage of facts.

The realistic arguments as to the nature of mathematics were first advanced by Royce in the two volumes of *The World and the Individual*, several years before the appearance of Russell's *Principles of Mathematics*. The mathematician, we are told, is as much a student of given facts as is the chemist or business man. He is "as faithful a watcher as the astronomer alone with his star" (I, p. 256). The result of his observations abound in the unexpected as much as do the facts of any other field of research. To be sure Royce adds that what the mathematician watches is *in a sense* the result of his own play or activity; but this "sense" is made clear by the example of the diagram. The mathematician makes his diagram or set of postulates, but he cannot wilfully alter the consequences which alone are, after all, the specifically

¹ For further indications of this I may here refer to my paper on the *Present Situation in the Philosophy of Mathematics* (1910), and to the review of *Neo-Realism*, *Journal of Phil.*, VIII, 533 ff. and X, 197.

mathematical facts. You may call the spirit from the deep but you cannot control his actions after you have called him.¹ This purely realistic account of mathematics is developed in Professor Royce's address on "The Sciences of the Ideal" (read before the St. Louis Congress) in the monograph on the *Relation of the Principles of Logic to the Foundations of Geometry*, and his essay on "Logic" in volume entitled the *Encyclopedia of the Philosophical Sciences*. The fruitful character of deductive reasoning as a source of truth appears even in his *Sources of Religious Insight* (pp. 88ff.).

To those who view Royce's philosophy as a type of Neo-Hegelianism this attention to mathematics may appear as an introjected episode. (Royce's first introduction of mathematical considerations in the *World and the Individual* caused considerable surprise and misgiving doubts among idealists.) But those who have had the good fortune of membership in his logic seminar have learned how characteristic of his thought is the complete objectivity of all logical and mathematical considerations. The truth is that a careful survey of the whole corpus of Professor Royce's writings fully bears out his contention, in the preface to the *Problems of Christianity*, that his philosophy is not in any true sense Hegelian. Such a survey seems to me to show how profoundly Royce's philosophy has been influenced, not only by the Kantian doctrine of the primacy of the practical reason,² but also by the metaphysic of the *Critique of Pure Reason*. For whatever may be our objections to the Kantian metaphysics, we must not forget that Kant himself began as a mathematical physicist, that he had taught mathematics and that a primary object of his *Critique of Pure Reason* was to show the possibility of mathematics and physics as apodeictic sciences. The Kantian

¹ In his concept of a common world by means of the process of interpretation, in the second volume of the *Problem of Christianity*, Professor Royce has suggested a method which, if it can successfully be carried out, would overcome the neo-realist antithesis between finding and making propositions true. An adequate discussion of this, however, is not in order before Professor Royce gives us a fuller account of his meaning.

² This shows itself not only in the conclusion of his paper on Kant in the *Jour. of Spec. Phil.*, but also as the method of postulates in Chs. 9-10 of the *Religious Aspect of Philosophy*. In his general attitude to the importance of the 'practical' in philosophy Royce, like James, has been profoundly influenced by Lotze.

philosophy at least never identified the abstract and the unreal. At any rate it ought to be noted that the very first of Professor Royce's published writings, the *Primer of Logical Analysis*, already shows a strong interest in symbolic logic.

It is, however, precisely Professor Royce's rejection of the Kantian distinction between possible and actual experience that is at the basis of the fundamental divergence between neo-realism and the idealism of Royce. This rejection of the Kantian doctrine seems to me to grow out of the needs of natural theology which looms so large in all of Professor Royce's writings. Religious philosophies are for the most part doctrines of hope or guarantees of the efficacy of moral effort. Hence they tend to assume that the object of our striving is already in some sense actual. This leads to the rejection of all possibility from the nature of the Absolute. The Absolute of Professor Royce's philosophy, however, differs from the realistic God of Aristotle. It is not outside of mundane things but all-inclusive; and this identification of the Good with the Whole leads to the familiar difficulty as to the problem of evil. It compels us to assume that even now the world is better or richer because of the presence of vice, crime, poverty, disease and all the horrors of war. Such philosophies have always been sources of strength and comfort to many. Nor can any one rightly accuse such a philosophy of quietism who notices how few are willing to fight unless they are assured beforehand that victory is in some way certain. Neo-realism, however, does not share this strong faith, so impervious to the vicissitudes of human experience. It is not that neo-realism is hostile to the proper interpretation of religious experience. As I have tried to indicate elsewhere, its logic, with its emphasis on the organizing relations, is a better instrument for social philosophy than any nominalistic philosophy which must contain latent atomism or individualism. But neo-realism sees no evidence that any human community like church or state necessarily embodies our highest goal. The neo-realist lives in a world in which there are all sorts of possibilities of which only a small number succeed in becoming actual, and where all our gods or goods *may* meet with defeat.

NEGATION AND DIRECTION.

THE directional value of negation seems to me a not unprofitable subject for discussion at this time. This is perhaps only to say that I think I have something worth submitting on the subject, but in any case practically and logically negation is a very common attitude or motive in experience, at the present time being very much in evidence, and its value, in particular its relation to direction, is a subject of real interest. Also, whatever may be said for the substance or the manner of the discussion that follows, the subject is certainly one that may be chosen for the present occasion, when special honor to Professor Royce is intended. Any subject, however, seriously undertaken, would have Royce's approval.

Anarchy, agnosticism, irrationalism and many other cults or attitudes in negation—not all of them, socialism, for example, or liberalism or naturalism, bearing names of negative form—are surely among the signs of the time, and accordingly give more than a mere formal or abstractly logical interest to the problem of direction. Now, moreover, as at any time, there are many who from thoughtlessness or superficiality wonder how there can be any real direction in negation, their opinion being that negations can lead nowhere or at least nowhere in particular or nowhere pertinently. Not only have popular notions taken this discouraging view, but also even expert theories have often failed to recognize clearly and appreciate fully the part that negation has or may have in direction. So I would discuss the question; and my thesis is just this: Logically and practically negation can never be merely and absolutely negative, as so often assumed; on the contrary, in general it does and must lead somewhere and, what is more, in a pertinent and orderly way. Indeed there can be no real negation without direction, and even this: direction can be *significant* in the life of anything positive only through negation.

In support and explanation of this thesis I begin with certain

very simple and familiar principles. Thus, for the first of these, whenever there is definite assertion or 'position,' then is also, in tendency if not in fulfilment, generalization, and the outcome of generalization is always negation, transcendence of the positive. The idea here is manifestly Hegelian, but apart from its Hegelianism in real life propagandism, imperialism, all forms of what in general I may call monarchism or monism or even monomania, reputable or abnormal, show both how inseparable position and generalization are and how negation or opposition results inevitably from their union. With such origin, however, negation cannot escape a certain inheritance from its parents, position and generalization.

Secondly, then, among the familiar principles referred to, nothing positive may be negated or say transcended by reason of its generalization, without assertion, open or implied, of the principle, the general principle, of that for which in particular form the positive thing negated has been standing. Thus you can not honestly proclaim some one an impostor without ascribing actual significance to that which he has claimed to represent. There must be thrones, if there be pretenders; truth in things, if there be lies or liars about them. Again, to deny the letter of some creed is to assert the spirit and even anarchy is really a call for a new regime. A metaphysical nihilism, declaring there is no reality, can be only a disguised or indirect realism, being nihilistic only relatively to some passing notion of reality. So, to recur to the biological figure and to enlarge upon it a bit, although the negative may not or apparently may not inherit the formally manifest traits or characters of the positive, although really or apparently it may not inherit any of these quite intact, at least it must inherit the general principle, the basal radical life or nature of the positive; showing, if never the exact formal structure, the essential function.

Nor can negation, thirdly, be said to inherit *only* the general principle of the positive which it negates. Can any negative ever be free from the formal context, from the positive conditions, of its origin? Logically a negative, even if seemingly superlatively negative, must still always be relative or relational.

However negative, whatever else be true of it, it must at least formally be only another case of the positive. So, for example, are morality and immorality, although very distinct from each other, both cases of general morality. Opposition is possible only between things alike. Anarchy attacking organization must nevertheless adopt organization. Your very worst enemy can indeed fight with you only as he adapts himself to your nature and methods. It is only matter that may not penetrate matter. Even infinity can be only another finite. This necessary affinity of context or at least formal identity of negative and positive, this relativity of the negative, is a thing much too often forgotten or, if remembered, too little appreciated. In this, as in its many other aspects, the negative is so peculiarly elusive. So easily one has regard only to the obtrusive side of its nature. Yet how deeply and subtly the child enjoys willing *not* to touch, taste, handle or otherwise disturb or molest the forbidden jam! Just in his negative attitude and his filial cultivation of it lies, hidden perhaps but very much alive, a sweetly persisting jam context. Logically, I say, and with not less truth practically the context of any positive must persist in the negative. What were a negative term, impure or untied or apathetic, with only the prefix?

But, fourthly, and not so simply, now that the negative, born of position and generalization, has been shown to inherit both the general principle and the specific context, described above also as the manifest traits or characters, of the positive, there is some danger that the negative itself will be taken for a mere shell, an empty fiction, quite lacking in real meaning and effect; in other words, that, inheriting so much, it will seem to offer nothing really new; and this danger must be quickly removed, although the sheer absurdity of such a conclusion might be counted on to take care of it. Thanks to nothing less than that origin in the meeting of position and generalization, negation can never be idle or empty. It does inherit the general principle or function of the positive, but it retains this only as freed from the positive parental expression for some new expression. Again it does inherit the context or particular form of the

positive, but this it does not and cannot retain intact or unchanged in value. The formal context of the positive does indeed persist in the negative, or for the negative, but not as something final and intrinsic; it persists only as something having *meaning*, as something real or valid only mediately, not any longer immediately. Negation, as our story has it, shows the positive neither wholly denied nor—of course not this—merely reasserted, but *made means instead of end*, this change having in point of fact a radical character not easily exaggerated. The end to which the positive becomes only means lies of course in the comprehensive general principle or function which the negation has freed from its identification with the positive. So is there truly a great difference between real negation and 'absolute' negation so-called, the latter being as idle or abstract or formal as 'absolute.' Real negation is relative, and its rise in experience must always show the two things already pointed out: (1) the liberated principle as end or meaning, and (2) *mediation*—in the sense of change from immediate reality or value to only mediate reality or value—of the positive thing negated. 'Absolute' negation can at best give only another case, perhaps a last or limiting case, of the positive; real negation quite transcends the positive by making it not opposed, but mediate.

It seems worth while to add here that, viewing negation from any one of those three standpoints which were so closely associated above, from the contextual affinity of negative and positive, or from the necessity of opposition being in kind as well as from the negative's relativity, one must always find mediation of the positive as incident to the negation. As to either the affinity or the opposition, what two mutually opposed things have in common obviously can be only medium, a 'medium of exchange' perhaps, a common weapon or instrument, the always necessary common ground on which distinct differences meet. Just by dint of the difference, the opposition, the negation, it simply can not be immediate any longer. But the relativity of the negative is of most direct interest here. So, to return to that, not only are all real negatives relative, but also in all relativism there is negation, perhaps often disguised, however poorly, never really

hidden; and relativism, as is a commonplace at least in history if not formally in logic, has never been without its notable associate, utilitarianism. The relative, besides being the questioned if not denied, the mistrusted if not opposed, has been also the merely useful or mediate and so, I add, the forerunner of some real change.

But, fifthly, now to reach an important conclusion from what has so far been presented, negation, having such origin and such inheritance, brings difference or change of a sort which I think can best be described as *dimensional*. Real negation means, it implies and induces *dimensional difference*; this being, as I conceive it, neither difference in mere degree nor absolute difference in kind, but a true *tertium quid*.¹ The term dimensional or dimension is of course borrowed from mathematics, and borrowed by a layman in mathematics at that, but some intimation of its meaning even as used here should be evident from its source, although many may regard the term in this place as quite too metaphorical to be profitable. Also, as must be conceded, philosophy has need in general of guarding herself against too much mathematicalism, professional or lay. The meaning here, however, is the chief thing, be the term wisely borrowed or not, and in the present intention a dimensional difference or change is one which, although qualitative, although really negative of something, although in kind, is still both congruous with and dependent upon, not directly but mediately dependent upon, that from which the different thing is said to be different. Otherwise put, anything become only mediate is dimensionally inferior to that to which it is mediate, the latter being dimensionally greater. This may, then, be a bold use of the term dimension, suggesting as plainly it does that dimensional difference is intimately related to the distinction between means and end, but I think I can at least make out a plausible case.

The whole question of dimensions is of course not just one of length, breadth and thickness, nor of the rectangular relation

¹ I have discussed dimensional difference in two other articles: "The Logic of Antithesis," in *The Journal of Philosophy, Psychology and Scientific Methods*, Vol. VIII, No. 11; and "Dualism, Parallelism and Infinitism," in *Mind*, Vol. XX, N. S., No. 78.

that these may have to each other. Like other things, dimensions are always of wider and deeper principle than any given case of them can ever adequately exemplify. Simply any given case must be relative to some particular situation. I submit, then, as already suggested, that in general in dimensional difference or change there is involved the distinction between means and end, that where you have the distinction you have dimensional difference and where you have dimensional difference you have the distinction. As to the objection, which is quite likely to be raised, that dimensions coexist, whereas in the distinction between means and end there is always an implication of movement or action, the former thus being spacial and the latter temporal, I would simply say that dimensional variation may very properly be viewed genetically and that in any given instance coexisting dimensions, like those of ordinary three-dimensioned space, may only (1) represent certain accomplished adjustments or mediations and yet also (2) just by their structurally determined region be mediative of some activity in time that realizes a new dimensional variation of the mediating region. Ordinary space's three dimensions only bound or define a region that formally or structurally is what it is relatively to such established adaptations of varying but functionally related factors as accord with the possibility of locomotion or change of place, or even with the possibility only of a certain type of locomotion or change of place. Locomotion, in other words, is so much a matter, if physical or objective, of mere mechanical routine or, if subjective, of free habit or second nature, that its sphere or region, its space, appears quite staid, seeming static in character and coexistent and eternal in all its parts component or dimensional. But this staid character, or rigidity, is relative to the freedom of the locomotion or to the perfect adjustments which the freedom shows. The space of the locomotion, itself three-dimensioned, may still be only mediate to something different, dimensionally different.

In most general terms, if one view any dimensional variation genetically and so in accordance with the distinction between means and end, the new dimension, say the $n + 1$ st dimension,

instead of being just one more statically and numerically, as if its ordinate place and character had no distinct value, as if with the advance there was no enhancement and progression of meaning, even no advance in quality, must always be a mark of something to which the lower dimensional field, that is, the n -field, has become only means or medium. Indeed is not the mediation, here suggested, to be detected in the familiar functional relation that maintains between dimensions, even when viewed quite statically or coexistentially? Any two, if functions of each other, are in the relation of means to end, so to speak, reciprocally; the dynamic character of the relation being only hidden in the poise, the established balance, of the function and being indeed only truly dynamic because of the reciprocity. A function so accurately established as to be reciprocal or reversible, like the functions of coexisting variants or dimensions, is the very basis of a freely active force. Furthermore, if an established function thus shows reciprocity in the relation between means and end and so also gives evidence of a freely active force, one needs only to look in order to see that the situation thus comprising at once a rigid system, the established region of the function, and a liberated force, the movement within the system, must be potential with something else, with something different, to which the situation itself is become only mediate. Ordinary space, the rigid sphere of free locomotion, may be mediative of activities dimensionally much more complex.

To ordinary space and locomotion I shall have occasion to refer hereafter. Here, besides pointing out that any dimensional difference or variation may be viewed genetically and under the relation of means and end, a variation in dimensions, n , $n + 1$, $n + 2$, etc., showing a progressive mediation, I would suggest also—perhaps now quite unnecessarily—that any dimensional variation must involve more than a quantitative change. In other words, a manifoldly dimensional field or region can be, or contain, no mere homogeneous mass, but must involve heterogeneity, its dimensions making only a systematic distribution of qualitatively different factors. Thus, very simply put, a four-dimensioned field varied by a fifth dimension involves a difference

that is not like in kind to the ordinary quantitative difference between four and five. In the former case there is a structural change; in the latter, only a change quite within given structural conditions. In ordinary mathematical terms, which can not wholly conceal the facts, the former involves ratios and multiplication, for a new dimension is always a multiplier, a constant factor; but the latter involves mere quanta or masses and addition. Logically the context of multiplication is very different, qualitatively different, from that of addition; as different as ratio from mass. Multiplication may be, as we used to be taught, merely a short method of addition, but this does not preclude its being a different kind of thing. A dimensional difference, then, is not a quantitative difference; or, if a quantitative difference, is its own kind of quantitative difference, unlike that of mere aggregation.

At risk of offending with much repetition, in any dimensional change, n being what you please and the $n+1$ st dimension being a multiplier of the n -dimensioned field or structure, the change reduces the n -field from an aggregate of mass-values to a system of ratio-values; and ratios, as was said, certainly do give a different context from that supplied by mere masses. Also, as showing another phase of the change, from the standpoint of the $n+1$ st dimension there is realized a peculiar superiority to the merely quantitative conditions or limitations of the n -field. Fifteen, for example, as a whole, is a distinct sort of a whole, a whole of a higher kind, when the multiplicand of some number, its multiplier, as compared with fifteen as a whole simply increased by some addition. As a multiplicand it is a functional whole, a mediated whole, an integral system of ratios or related parts become the medium of something formally different, and in this character of system there is that peculiar superiority. In the difference between length and area or between area and solidity there is to be seen the change of context and quality above referred to, for the lower region as well as the mediation of that region, length being only mediate to area, area to solidity. But of course the idea is not confined to such commonplace geometry. In any dimensional difference the lower field, becoming mediate,

changes from one kind of whole to another kind of whole, from an aggregate whole to a relational whole. Dimensional variation, to sum up, and mediation and heterogeneity go together; and, lest we forget, in each of these there is evident a negation of something or, say, evidence of what it is to negate something. Any given region, negated, mediates something different.

Furthermore, still to consider the nature of dimensions and to court still the favor or at least the patience of mathematics, there is an incident of dimensional variation, of any change from n to $n+1$ dimensions, that should have close attention; since, as seems to me, it throws important light on the meaning of negation and of the various accompaniments of negation which have been pointed out here. Thus, to begin with, the $n+1$ st dimension must always stand, of course for something formally different from the mediating lower field, the n -field, but also for something essentially possible to, or potential in, that field. Such essential in distinction from formal—or mechanical?—potentiality might be concluded from the functional relation that the new dimension must have to the mediating field; and the conclusion itself suggests an interesting, if bold, question. Can it be that dimensional variation is closely akin to the difference between mechanism and organism, the mechanical and the organic? Certainly the organic, always depending on the mediation of some mechanism, must be something essentially potential in the mechanical although at the same time itself—notice the negative—non-mechanical. But, such bold speculation aside, so much being said of the potentiality of the new dimension in the mediating field, it remains to be added that much of the present story, at least a very important chapter of it, is to be found in the infinity of an infinite series and especially in the last term which must represent a possibility of the series, but being infinite, not a formal possibility.

Infinity, however negative, is always the infinity of something—a simple circumstance not infrequently overlooked; it can no more be free from the context of some finite than any negative can be free from the context of its positive. But, furthermore, nothing infinite can ever be duly accounted for as merely the

largest or the smallest possible, for the infinity of a thing must be more than just the supreme variation in number or size, and not to see it as more is to fail to give the negative in it full significance. Also it is to belie the last term by treating it as a formal possibility. Thus a so-called infinite term, a last term or limit, of a series can not possibly be a term of the series and also last or infinite; a difficulty that is quite too old and familiar to need more than mention. Simply by its negative the infinity adds something besides maximum or minimum size to the finite. Any series of terms must obviously be more than just the terms of the series and at least a part, an important part, of the meaning of the infinite term must somehow be that by which the series is more, the very infinity even effecting a certain abstraction of the positive finite terms of the series and revealing and asserting, apart from these terms and their formal character, something essential to the series, general to all the terms, and formally different. The 'last term,' for example, of the simple series: $1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8} \dots$ is describable in various ways, every one of them having some regard to this peculiarity. It is hardly the half of anything, since at infinity there would be nothing left to halve, but halving itself as a principle, a function, at last free from any particular application *and so implying all possible applications*. It is, then, as implying all possible applications, not so much a term of the series as the series's unity or law that has been exemplified in every term. If you would call it zero, you must remember that it is a contextual zero. Is there any other kind of zero? Moreover, in so far as it is zero, not only is abstraction made of all the positive formal terms, but also the abstraction is no sooner accomplished than these very positive terms return to the series in a new character, all of them having the nature of the infinite term. In short, they return to the series as constituting a system rather than a series, as 'relations' rather than 'things,' ratios rather than quanta. So does the infinite term show itself like any other negative, to be born of position and generalization, to have inherited the principle or function of the positive, and to have rendered the positive only a mediating system. With regard to the mediation it remains to be said that by the change

from series to system, which logically the infinite term completes, the formal series is, so to speak, taken up—*aufgehoben?*—into a region dimensionally enhanced, mediation and dimensional variation being inseparable. Thus, again, the logical value of the last or infinite term includes a dimensional change for the field within which the finite terms have their manifest form; and the term itself, so valued, appears indeed as a true *tertium quid* between difference in degree—the term as essentially although not formally a term of the series—and difference in kind—the term as standing for something in and of the series but formally different. Possibly the same story is told at least as plainly in the following way: An infinite series, whatever its positive manifest form, must always be expressive of a functional—so different from a structural—unity; of such a unity between two formally different things, making some n -field mediate to the $n+1$ st dimension or taking an n -field up into an $n+1$ -field.

Parenthetically I venture to remark that the real logic of mathematics is commonly hidden in the very abstraction, the extremely formal character, of mathematics. In a world of purely formal relationships, the real things related are made as invisible as ghosts. Graphical representations, therefore, are bound to be of great value, since in some measure they bring to view important logical implications that otherwise would be quite hidden. It has often puzzled me, for example, that one could ever get the sum of an infinite series; for, however formally correct the calculated sum might be, there has still seemed to be something not accounted for; but, perhaps only in my layman's folly or my superangelic aggressiveness, I think that I see a simple way out of the difficulty. The sum of the series: $1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8} \dots$ is, of course, 2; and, formally, one need go no farther; but, to go farther, if the series be formally in an n -field, the 2, if really 'satisfying' the infinity and what this brings to the series, must be in an $n+1$ -field; in other words, 2 as a product rather than 2 as a sum; graphically, 2 as an area rather than a length or as a solid rather than an area, depending on the value of n . To the formal mathematician such a distinction will doubtless seem too subtle or altogether empty and futile; but, whatever be its value

or lack of value in the mere technique of mathematics, it strikes me as highly important in the real logic of mathematics.

I do not know if I have succeeded in conveying my meaning. Yet what I would say is that the case of infinity affords a specially interesting illustration of the negative as involving dimensional difference or change. If any given finite, or structure, be of n dimensions, then its real in distinction from its formal or only hypothetical infinite must have $n+1$ dimensions. Infinite space, for example, is not just formally like but bigger than the biggest possible finite space; for (a) a finite space is always formally a definite and specific thing, in other words a thing of n dimensions, of given structure and originality, (b) it is made infinite only serially or gradually, that is only by some persisting function, operation or principle, the series's unity or law, such as bisection, *uniform* addition, parallelism, or any regular variation you please, and (c) as infinite, far from being the series's biggest, or smallest, possible case or term, it reveals something true of all the terms, informal or superformal to them and virtually transforming of the series as a whole, making the positive series only mediate to something formally different. A finite space, then, may not become infinite and remain formally intact. As an n -space it must remain always finite, formally unchanged; infinite, it is an $n+1$ -space; its very infinity being so rounded up or brought to earth. As an $n+1$ -space, although infinite relatively to the n -space mediating it, although positively manifesting and incarnating the infinity of that space, it is itself quite earthy for being, within its own higher region, capable of indefinite finite expressions.

Have I at last lost myself and perhaps others in the maze of mathematics? I make no apology. Also my story, although not yet finished, is approaching its last chapter and there may be relief in that. Before leaving the field of mathematics, however, or rather the field of the real logic of mathematics, there is a conclusion from much that has now been said which, although possibly somewhat aside, I can not pass without mention. Thus, in just a word or two, with every instance of mediation or dimensional variation there must go a change in the meaning or

value of what it is to be the part of a whole or, as of special interest, of what it is to have position or location. A given structure or region having n dimensions and having become a mediating system to an $n+1$ st dimension, every part or position in the new region must have a value *comprehensive of the whole of the mediating n -dimensioned structure*; every part or position must be intensive with the complete extension of the lower region and so must be said to have the freedom of that region, transcending the limitations of partiality or particular position in it. So appears in a new way that peculiar superiority which was claimed above for the new region in any case of mediation over the old, any part or position in the new being as if all parts or as if everywhere in the old; and this fact of superiority, suggestive even of the infinite for which, if I may paraphrase the words of the Psalmist, all finite places are as one place, opens up most interesting reflections on the whole problem of location or participation. In any valuation of part or place one must first know, let me say, the dimensional coefficient. To speak in the familiar symbols, an $n+1$ -here is an n -everywhere.

Now, to recapitulate, negation has been seen to be sprung from position and generalization, inheriting from its allied forebears at once the freed principle of the thing posited and the thing posited itself as a mediated whole. Negation, furthermore, having such inheritance, brought difference, but dimensional difference, which I venture to speak of now as the difference of change by mediation. Thus there is mechanical change, variation under conditions of uniformity and commensurability, in fact routine or accumulation rather than real change. There is, again, absolute change, the creationalistic change of an old time theology, change by causation *ab extra* or production *ex nihilo*; difference, then, by a complete dualism or pluralism; not real change. And there is change or difference by mediation; the change of dimensional difference, discoverable, as has now been submitted, even in the dimensional variations of space; real change; and, as may be added here, change that has real direction.

So much have we seen. But for appreciation of what has been found there is need of other than mathematical illustrations of

dimensional difference, useful as these have been; for, as should be remembered, in its rise here the idea of such difference was as general as negation. In the variation of an n -field by an $n+1$ st, dimension masses were seen to give way to ratios, component parts to relational parts; in other words certain assumed absolutes became relative; and relativism succeeding absolutism is certainly no mere mathematical phenomenon, being quite as typical of the worlds of psychology and sociology. In these worlds, too, the relative, as was indeed remarked, is also the mediate, the useful, quite as truly as in the world of mathematics. To explain a little, relativism in general, when supplanting absolutism, always means the passing of certain positive standards, or 'measures.' Once treated as final and absolute, these are become only 'relative' and with the change the pertaining whole, perhaps the organized life of some people, in which they have maintained, becomes in the course of history a mediated whole, losing at once its isolation and a certain inner discreteness or separation of its parts that has made it more social aggregate than a unity. In short the relativism shows a social system come or coming into free, open use; its various component institutes changing from things of direct interest, each with its own cherished and intrinsic value, to so many related conventions or utilities; from distinct institutes, each quick with its own human life and passion, to mere instruments generally and freely in use because become conventional and humanly dead; for relativism and utilitarianism, I say again, are of the same day and generation. It may be only a coincidence, but it seems a coincidence well worth some reflection, that among the ancient Greeks mathematics came to a consciousness of the difference between mass and ratio, leading eventually to Euclid's mingling that strange and incongruous book of proportions with the other books of his geometry, at about the same time that brought the relativistic and utilitarian dictum of Protagoras: Man is the measure of all things. The mass-unit and the definite or positive standard or measure of any kind were thus dethroned contemporaneously; all such measures being henceforth only 'relative'; there being no longer any supposed commensurability of men or things. But,

Euclid's book of proportions aside, in what I have said above of relativism and of a social system coming into use, becoming mediated, I shall seem to some to be blinding myself to an important fact. Relativism, they will insist, by discrediting traditional positive standards and institutions really brings individualism and serious social disorganization instead of 'social system in free use.' This fact or rather this notion I deny. Such a way of putting the case rests on a misunderstanding of individualism, of the disorganization so often seen and of a social system become a mediated whole or come into real use. Thus the assertive individual, always more the cosmopolitan than the provincial patriot, has at last found the various elements of the organized life around him only so many adjustable parts of a useful whole, which just in being used becomes a real unity or system, and there results, relatively to the traditional sanctity and conservative integrity of things, seeming instability and disorganization. Yet the 'disorganization' is only an incident of the use or mediation, very much as a law's loss of rigor is an incident of its application in real practice. There must ever be 'disorganization,' when mere use or only mediate interest succeeds immediate devotion, when the sacred turns secular. Deeply, however, nothing is so organizing as secularization. Moreover, the individual is at once a truer and bigger whole, a more comprehensive and a more complex unity, than the local system or order which, thanks to the possible adjustments of parts, he has been able to make only the means to his now cosmopolitan life. I might add, too, that the individual is always something of a foreigner and, thanks to his cosmopolitanism, is never without his invitation to what is foreign. But the foreign, by the very negation in it, is only an influence sure to bring to completion the relativism and utilitarianism in the life of a people. Invading foreigners, although like bulls in a china-shop, are so much freer even than the cosmopolitans at home really to use what they find, unhampered as they are by any lingering emotional associations. Just here, then, that is, in the negation which the new or foreign realizes, lies what must give special significance to the analogy, here suggested, between sociological and mathematical relativism and the

several incidents, mediation and dimensional difference, which relativism implies. Thus with the negation from the foreign there must come into life real difference, but a difference—however bold or seemingly crude it may be to describe it so—that is no more or no less radical than a dimensional variation. It is a dimensional variation under the here adopted definition; for the new life that is brought about is always dependent upon the mediation of the old regime. Such mediation, moreover, is more radical than revolution, which commonly brings only opposition and succession in kind; it is as radical as evolution; as the change from the ancient civilizations to the Christian or from the mediæval regime to the modern. In history, as in logic, change by mediation is the only real change.

Further illustration of what is meant here by mediation and dimensional difference, by change through mediation, as coming from negation, is afforded by the various circumstances that always underlie a movement for democracy. This case of democracy, I may say, was the subject of a paper published recently¹ under the title: "The Duplicity of Democracy, or Democratic Equality and the Principle of Relativity." In any democratic call for equality, a call that, however seemingly abstract and general in its terms, is always in effect relative to some particular social and political context, that is, to some established type of social organization, there is to be seen, in the first place, something positive, so far as also general, becoming only mediate. In both the generalization and the mediation, moreover, one can see negation, the democratic attack upon the positive, that is, conflict of democracy with some aristocracy and its peculiar privilege; and the result of all is that special privilege turns into general opportunity, the institutes of the aristocracy becoming the *general* instruments of a democracy. Democracy, then, at least under present definitions, may be spoken of as a dimensional variation of aristocracy. Also, in like manner, constitutionalism, for which the given law is only a means to an end, is a dimensional variation of political absolutism; induction, of deduction; rationalism and mathematicalism,

¹ *American Journal of Sociology*, September, 1915.

of a positive and dogmatic legalism; industrialism, of militarism; and, not to make a longer list, Protestantism or liberalism generally in religion, of a religion of authority. In all of these 'dimensional variations,' as in the case of democracy, something positive has been at once generalized and negated and so has been made mediate to something new, to something radically different.

"Is he diagramming history," I imagine some one asking at this point, "for the entertainment of mankind? Would he draw the life of one period of history in n dimensions and of the succeeding period in $n+1$? How humorously profound! So to illustrate his story is truly delightful, although possibly more delightful than true." Let a dimensional history amuse, if it must, or may. Of course the intended meaning is the important thing and the meaning is, again, that the significant changes of history are changes by mediation, the later thing, the new, being what it is only by the free mediation of the old or passing thing; only—with apologies for the worn refrain—by one time institutes becoming the instruments of human life. Can the new, if new, if different, if negative of the old, ever escape the context and mediation of the old?

But, waiving further illustration, whether from mathematics or from history, and resuming the recounting of general principles and their story, I turn at last, sixthly, to the simple conclusion, virtually stated already, that in dimensional difference, consequent upon negation, in change by mediation, lies the direction which I would claim as not less practically than logically belonging to negation, even to such negatives as were mentioned at the beginning of this paper, anarchism, atheism, agnosticism, irrationalism, and many others, including those bearing names not negative in form. In such change by mediation there is real direction; for, in the first place, it is real change, and, in the second place, the change is always, so to speak, mindful of a context. A dimensional difference might even be defined as a difference mindful of a context; and certainly significant direction must depend on such mindfulness.

Here, then, this paper might come to an end, for in essential

principles its course is run, its story told. It is, however, a poor story that awakens no afterthought; and so, to save my tale at least from the appearance of poverty, a few reflections, some with a view to meeting possible criticisms, some perhaps of a lived-happily-ever-after character, are appended.

In human experience as worked out socially, as developed in a social organization, where social classes exist under the conditions of division of labor, specialism and all sorts of isolated cults and interests, one may often have difficulty in detecting the conditions and results of negation here asserted. Like other attitudes of organized and more or less isolated groups, negation may often seem to be assumed and maintained absolutely and unqualifiedly, that is, just for its own sake, and an apparently aimless and directionless violence accordingly may quite obscure every thing else. But in the logic of human experience one needs to remember that no attitude or cult of a group, no defined class-interest, positive or negative in character, should ever be taken by itself. No such interest ever represents the experience-whole. Clear as this is, it is often overlooked. From the standpoint of wholeness, then, of the essential unity of human experience, I think that the social expression of human experience, always more disruptive and analytical than the personal or individual, can afford no real case against the idea that logically or practically negation leads somewhere, having real direction by the dimensional difference, the mediation of the positive, which it brings.

As to the idea being practical as well as logical, it has certainly had its place in psychology and biology which at least seem to deal more directly with what is actual than logic. In these fields the fact of mediation is evident in the part taken in all theories of adaptation by the distinction between the structural and the functional, the formal and the vital, the mechanical and the organic, or even, recalling Professor Dewey's valuable contribution to psychological ethics, impulse and will, will being in his phrase the 'mediation of impulse,' and impulse being the response of given structure to something external and different. Biologically or psychologically, as well as sociologically, the logic

of negation and mediation, of positive structures becoming mediate, has no lack of illustrations. Structures become mediate, as they confront alien, negative conditions; as the self, identified with them, adapts itself to a not-self or external environment.

But somebody says here that it is not the doctrine of mediation but the application of the term dimension which gives him pause. Logically and sociologically and psychologically and biologically there seems to be a case for change by mediation, but to make the phrase, 'dimensional difference,' cover all such changes is fantastic and to get behind a definition of one's own is quite too arbitrary to be accepted without some protest. So must I, the offender, return once more to the scene of my offense. Replying to the critic of my admittedly very comprehensive dimensionalism I shall get out from behind my definition and suggest: (*a*) that dimensional difference, like most if not all other things, is bound to be, as has in fact been said here already, more in principle than in its usual acceptance or application; (*b*) that psychologically even the dimensional values of ordinary space are acquired by processes of adaptation and mediation; (*c*) that ordinary space, whether regarded psychologically or mathematically, is ordinary and three-dimensional only by virtue of an abstraction, which, however warranted, needs now to be recognized as arbitrary and so misleading; and (*d*) that ordinary and three-dimensional space itself is or may be in reality, that is, when seen without constraint of any arbitrary abstraction, a space of many more than three dimensions and so of a much more complex adaptation or a much larger or fuller mediation than the abstract standpoint referred to can possibly disclose.

(*a*) The first suggestion needs no explanation.

(*b*) The second will hardly be disputed.

(*c*) The third, on its psychological side, obviously has reference to the fact that space has been for the most part and under the prevailing habit of mind regarded and explained only as a region or medium of bodily locomotion. This fact has already been a matter of some discussion here, but it may be enlarged upon. Thus the old theory of space perception by association of visual

sensations, local signs and muscular sensations was certainly relative to the notion of the self or subject, whether in its whole body or in distinct parts, like the moving legs, the gesturing arms, or the adapting eyes, as locomotive; and, so far as I can appreciate, later theories or later variations of this theory have not really freed themselves from such an isolation of the locomotive self. Relatively to the locomotive self space may be so and so; perhaps, thanks to the bilateral structure, the erect position and the free mobility, three-dimensional, possessing height and width and perspective or depth; but one must always remember the relativity and the abstract standpoint determining it. In reality locomotion is very far indeed from exhausting the nature or meaning of the self's spacial activity, even of its activity 'in space,' and the space itself in which the activity takes place can not therefore be merely, so to speak, a room to move about in, while one does, thanks to more abstraction, a lot of non-spacial things. The self's so-called non-spacial activities are quite as truly *of* space as *in* space. The higher human activities in general may have their space *in quo*, but also, in a sense that may not yet be apparent, they must have their space *ob quem*. My Latin, I think, is correct.

(d) To turn to the fourth suggestion, which is only complementary to the third, space, even ordinary space, really must be deep with the values of activities far more complex in their adaptive or mediative character than those of mere locomotion and must be accordingly differentiated with many more dimensions or terms of functional relation than the three which locomotion seems to require or which express the natural space or extension of only so much of human activity or, objectively, of mere change of place. Admittedly it is a very artificial way of showing the meaning here only to point out that, dimensions being multipliers or terms of functional relation, the space which to the conventional locomotive view seems only three-dimensional may really be reproduced or multiplied into itself indefinitely, a fourth dimension—if the structural basis of variation be rectangular—being formally but not actually identical with the first, a fifth with the second, and so on; but, however artificial

this notion, in form doubtless more mathematical than psychological, it is well to recognize and appreciate once more that the ordinary spacial world really does mediate far more than just the locomotive activities and so that the actual dimensions of this world's space can not possibly stop at three—mathematically or psychologically. True, the psychology of the fourth, fifth, sixth . . . twentieth dimension has yet to be worked out and would, if ever undertaken, be sure to meet great difficulties; but, humorously or seriously, psychology has not been in the habit of stopping at difficulties. I wonder if it may not be said that psychologically, as well as mathematically, the free and orderly motion of a body in space expresses or realizes—how shall I put what I would say?—a field or space which is dimensionally, or functionally, superior to that merely mediating space in which the motion as motion seems to take place. Does not the very freedom and order of such motion imply a functional relation, a dimension, not formally manifest in the spacial structure either of the body itself or of the merely *containing* space? The mathematician may duly account for such a complication by his device of 'powers,' one or more of the dimensions being squared or cubed, and yet fail to realize that the motion he has so described expresses more than the space it seems to be in, expressing a space *ob quem* that dimensionally transcends the space *in quo*. But the mathematician's blindness should not set the limit to the evidence. Wherever there is orderly activity within a given structural system, there is realized a space *ob quem* dimensionally superior to the space *in quo* of the activity. Think, furthermore, of the dimensional variation or complexity that must be realized when a freely moving body freely uses—or functions with—a freely moving body; as, for example, when a human being makes use of a tool or in any way expresses himself or his 'thought' through any mobile medium. The situation so presented is truly a complex one, probably far too complex for successful analysis; but the pertinent fact about it is that the activity is spacially mediated and that the space even of its mediation must lie quite within the ordinary three-dimensional space of mere locomotion.

The same abstraction which has hidden from view the deeper values of ordinary space has also hidden the meanings, the living and immanent meanings, of location and of the external world, the world sensuously perceived in space. Of location or position something has been said already. To know the value of any location one must know the dimensional coefficient. As to the perceived world, to all human activities save those of locomotion, this has been indeed an external world. Primarily only a world of motor-signs, landmarks, tactile values and such conditions of locomotion, it has had no direct and intimate part in the super-locomotive activities. Man's nature, in short, has been divided. He has been a creature of physical or sensuous activities and of non-physical or non-sensuous activities. His consciousness has depended on the distinct faculties of ordinarily spacial sense-perception and non-spacial and non-sensuous thought. It is true, of course, that in recent times these divisions have been losing character, or animus, but the illusion of them is not wholly dispelled. Yet, even as the space in which men move and act is in reality indefinitely dimensional, being unlimitedly potential with what may be called mediative power, being a space whose resources are, so to speak, only very slightly exploited by locomotion, the perceived world in space can be no mere world, as ordinarily understood, of 'external perception.' It is itself always a world of thought, and not less sensuous or spacial for being a world of thought. *The very essence of thought is mediation.* Thought and the life it accompanies and directs, instead of being non-spacial, really comprise only deeper variations, fuller mediations, of that same space, itself a realization of thought, the ordinary three-dimensional space, in which men move and perceive sensuously and 'externally.' Perhaps, if the much abused impractical, abstruse thinker, walking the streets of life, had his head less in the air, realizing that his thinking could mean only added dimensions for the space of his walking, in other words, a larger and deeper mediation of the world and the life around him, his thinking would be less abstruse and impractical and he, at the next crossing, less in danger of being run over.

An important conclusion from the foregoing view of the external world is plainly this. The distinction between external and internal can not be at any time a fixed one, single in application; it must be, on the contrary, not indeed an unreal distinction, but moving or functional; always an incident, specific as to the application and content of the terms, of every mediation. Always the mediating field is 'external,' but its meaning, that which it mediates, is internal; yet internal in a relative and at the same time somewhat special sense. Thus the 'internal' meaning is so, or is said to be so, for being different in kind from the form or structure of the medium. Meaning must always be thus different in kind and accordingly, although mediated by the given structure, can not be formally identified with this but, relatively to it, must seem hidden, mysterious, not placeable anywhere, 'internal.' So internal, however, it at the same time comprehends a greater sphere than that in which it has no determined place. In the adopted language of this article, while internal or without position relatively to the space *in quo*, the *n*-space, it has its place and part in the space *ob quem*, the *n*+1-space, any one of whose heres, as should be remembered, is an *n*-everywhere. How absurd one's language does sometimes get! But for illustration of this account of the external and the internal I would call attention to certain facts of history, which is only human experience written large. In history, in social evolution, as we have seen, it is the destiny of the institutional to become instrumental, of the immediate to turn only mediate, and, further, with this change there always arises a vigorous assertive individualism. In other words the personal members of society acquire a life to self, a life by reservation, an inner life, to which the institutional order of the time becomes only the external means or medium. Such an inner life, however, is so only relatively. The individual feeling and asserting it is also very much a man of the world, the outside world, another world, in feeling and volition being universal, cosmopolitan, natural, identifying himself even with things quite alien to the old order and retaining the old order only for its use to his new and different life. Historically the man of deep 'inner' life at

any time has himself lived and helped others to live at once in a larger 'outer' world and in a different world—different for the mediation, different by the 'dimensional variation.'

So, as to my offense of dimensionalism, far from needing to get behind my own definition of the term, dimension, which may have seemed an arbitrary definition, in my use of the term I can not have made any serious departure from anything essential to the ordinary usage.

Finally, in a very simple sum of the whole story, which has been told here, real negation does possess directional value; it brings, not change by mechanical variation nor change by causation *ab extra* or *ex nihilo*, but change by mediation; real change; change, as may now be added, that strikes in as well as out, developing inner life as well as larger and different spheres of life; change, again, that really leads somewhere, just because always mindful of a context, always using instead of just opposing what it changes and always being at once inward and outward.

ALFRED H. LLOYD.

UNIVERSITY OF MICHIGAN.

TYPES OF ORDER AND THE SYSTEM Σ .

IT is a commonplace of current theory that mathematics and exact science in general is capable of being viewed quite apart from any concrete subject matter or any system of physical facts to which it may usefully be applied. Geometry need not appeal to any intuition of spacial complexes or to a supposititious space form; it has no need to rely upon diagrams or make use of 'constructions.' Arithmetic makes no necessary reference to the sensible character of collections of marbles or of areas. Dynamics does not require the dubious assumption that the 'moving particles' of which it treats are possible of experience or verifiable physical entities. The 'points' of geometry and kinematics, the 'numbers' of arithmetic, and so on, are simply terms,— x 's, y 's, z 's, entities, anything,—and the question what concrete things may be successfully regarded as such x 's and y 's is a question of application of the science, not one which need be considered while the system itself is in process of development.

If considerations of usefulness and of application are important in determining what assumptions shall be made or what systems developed, still such pragmatic considerations are principles of selection amongst actual and possible systems, and not internal to the systems themselves.

An arithmetic, a geometry, a kinematics, is thus capable of being viewed simply as a complex of relations and operations (relations of relations) which obtain amongst entities the nature of which, apart from those properties which follow from the relations assumed, is wholly indifferent. Such a system may, in fact, admit of various interpretations and applications, more or less useful, all of which satisfy the requirement that these relations and operations be valid. As Professor Royce is accustomed to put it: a system of science is a type of order, the distinguishing characteristics of which are the kind of relations—symmetrical or unsymmetrical, transitive or intransitive, etc.,—which obtain among its terms, and the relations of these re-

lations, by means of which the terms are 'ordered' and the relations 'transformed.'¹

The growing recognition of the advantages of so viewing systems of pure science is one of the prime motives for the present interest in symbolic logic, or logistic. For logistic is the science which treats of types of order. One may reach the particular type of order which it is desired to portray—the arithmetic or geometry—by further specification of that minimum order which must obtain among entities if they are to 'belong together' in a set or system—the order of logic. This can be done in a variety of ways, which may be roughly divided into two groups. These two methods are distinguished by the fact that in the one case the 'numbers' of arithmetic or 'points' of geometry are treated as (conceptual) complexes having a definite internal structure, while in the other the 'numbers' or 'points' are the simple and indifferent terms, the x 's and y 's of the system. The former mode of procedure is best illustrated by the investigations of Russell's *Principles of Mathematics* and *Principia Mathematica* of Russell and Whitehead. The other method is exemplified by Dedekind's *Was sind und was sollen die Zahlen*, by the *Ausdehnungslehre* of Grassmann, and by the paper of Mr. A. B. Kempe, "On the Relation between the Logical Theory of Classes and the Geometrical Theory of Points."² But this second method appears in its best and clearest form in the paper of Professor Royce on "The Relation of the Principles of Logic to the Foundations of Geometry."³ Each of these procedures has its advantages and its difficulties. Of late, the first method has received a disproportionate share of attention. For this reason, if for no other, I deem it important to call attention to the second method in general and to Professor Royce's paper—its notable exemplification—in particular.

Professor Royce generalizes upon certain relations previously

¹ I do not know that Professor Royce has anywhere printed just this statement, and my way of putting it may not be satisfactory to him, but Harvard students in "Philosophy 15" will remember some such formulation.

² *Proc. London Math. Soc.*, Vol. 21, p. 147. See also his earlier "Memoir on the Theory of Mathematical Form," *Phil. Trans.*, Vol. CLXXVII, p. 1, and the Note thereon, *Proc. Royal Soc.*, Vol. XLII, p. 193.

³ *Trans. Am. Math. Soc.*, Vol. 6, p. 353.

pointed out by Kempe, in the paper mentioned above,—certain relations which are fundamental both for logic and for geometry. If $ac \cdot b$ represent a triadic relation in which a and c are the 'even' members and b is the 'odd' member, $ac \cdot b$ is capable of various significant interpretations. If a , b , and c represent areas, $ac \cdot b$ may be taken to symbolize the fact that b includes whatever area is common to a and c , and is itself included in that area which comprises what is either a or c (or both). The same relation may be expressed in symbolic logic as

$$ac \prec b \prec (a + c); \text{ or; } \bar{a}b\bar{c} + a\bar{b}c = 0.$$

This relation may be so assumed that it has the essential properties of serial order. Taking it in the form just given and presuming the familiar laws of the algebra of logic, if $ac \cdot b$ and $ad \cdot c$, then also $ad \cdot b$ and $bd \cdot c$. Hereupon we may translate $ac \cdot b$ by ' b is between a and c ,' and the relation will then have the properties of the points a , b , c , d , in that order. Further, if a be regarded as an origin with reference to which precedence is determined, $ac \cdot b$ may represent ' b precedes c ,' and $ad \cdot c$ that ' c precedes d .' Since $ac \cdot b$ and $ad \cdot c$ together give $ad \cdot b$, if ' b precedes c ' and ' c precedes d ,' then ' b precedes d .' Hence this relation has the essential transitivity of serial order, with the added precision that it retains reference to the origin from which 'precedes' is determined.

Professor Royce points out to his students that the last mentioned property of this relation makes possible an interpretation of it for logical classes in which it becomes more general than the inclusion relation of ordinary syllogistic reasoning. If there should be inhabitants of Mars whose logical sense coincided with our own—so that any conclusion which we regarded as valid would seem valid to them, and *vice versa*—but whose psychology was somewhat different from ours, these Martians might prefer to remark that " b is 'between' a and c ," rather than to note that "all a is b and all b is c ." These Martians might then carry on successfully all their reasoning in terms of this triadic 'between' relation. For $ac \cdot b$ meaning $\bar{a}b\bar{c} + a\bar{b}c = 0$ is a general relation which, in the special case where a is the "null" class contained in

every class, becomes the familiar " b is included in c " or " $\text{all } b \text{ is } c$." By virtue of the transitivity pointed out above, $oc \cdot b$ and $od \cdot c$ together give $od \cdot b$, which is the syllogism in *Barbara*, 'If all b is c and all c is d , then all b is d .' Hence these Martians would possess a mode of reasoning more comprehensive than our own and including our own as a special case.

The triadic relation of Kempe is, then, a very powerful one, and capable of representing the most fundamental relations not only in logic but in all those departments of our systematic thinking where unsymmetrical transitive (serial) relations are important.¹ In terms of these triads, Kempe states the properties of his 'base system,' from whose order the relations of logic and geometry both are to be derived. The 'base system' consists of an infinite number of homogeneous elements, each having an infinite number of equivalents. It is assumed that triads are disposed in this system according to the following laws:²

1. If we have $ab \cdot p$ and $cb \cdot q$, r exists such that we have $aq \cdot r$ and $cp \cdot r$.
2. If we have $ab \cdot p$ and $cp \cdot r$, q exists such that we have $aq \cdot r$ and $cb \cdot r$.³
3. If we have $ab \cdot c$, and $a = b$, then $c = a = b$.
4. If $a = b$, then we have $ac \cdot b$ and $bc \cdot a$, whatever entity of the system c may be.

To these, Kempe adds a fifth postulate which he calls the 'law of continuity': "No entity is absent from the system which can consistently be present." From these assumptions and various definitions in terms of the triadic relation, Kempe is able to derive the laws of the symbolic logic of classes and the most fundamental properties of geometrical sets of points.

¹ It should be pointed out that the triadic relation is not necessarily unsymmetrical: $ac \cdot b$ and $ab \cdot c$ may both be true. But in that case $b = c$, as may be verified by adding the equations for these two triads. Further, $ab \cdot b$ is always true, for any a and b . Thus the triadic relation represents serial order with the qualification that any term may be regarded as "preceding" itself or as "between" itself and any other.

² See Kempe's paper, "On the Relation between, etc.," pp. 148-149.

³ If the reader will draw the triangle abc and put in the "betweens" as indicated, the geometrical significance of these postulates will be evident. I have changed a little the order of Kempe's terms so that both 1 and 2 will be illustrated by the same triangle.

But there are certain dubious features of Kempe's procedure. As Professor Royce notes, the 'law of continuity' makes postulates 1 and 2 superfluous. And it renders entirely obscure what properties the system may have, beyond those derivable from the other postulates without this. For the negative form of the "law of continuity" makes it impossible to assume the existence of an entity without first investigating *all* the properties of *all the other* entities and collections in the system, where some of these other entities and collections exist only at the instance of the 'law of continuity' itself. Consequently the existence of any entity or set, not explicitly demanded by the other postulates, can be assumed only at the risk of later inconsistency. Also, in spite of the fact that Kempe has assumed an infinity of elements in the base set, there are certain ambiguities and difficulties about the application of his principles to infinite collections.

In Professor Royce's paper, we have no such 'blanket assumption' as the 'law of continuity,' and the relations defined may be extended without difficulty to any finite or infinite set. We have here, in place of a 'base system' and triadic relations, the 'system Σ ' and "*O*-collections."

The system Σ consists of simple and homogeneous elements. Collections of these may contain any finite or infinite number of elements; and any element may be repeated any number of times; so that x and x -repeated may be considered a collection, x , x -repeated, and y a collection, and so on. Greek letters will signify determinate collections in Σ . Collections in Σ are either *O*-collections or *E*-collections. $O(\text{---})$ signifies that (---) is an *O*-collection; $E(\text{---})$ that (---) is an *E*-collection, *i. e.*, that it is not an *O*-collection. Assuming for the moment the principles of the algebra of logic, $O(pqrs \dots)$ signifies that $pqrs \dots + \overline{pqrs} \dots = 0$. [Both the laws of the algebra of logic and the properties of *O*-collections which render them thus expressible are, of course, derived from the postulates and not assumed in the beginning.] It will be clear that the order of terms in any *O*-collection may be varied at will.

' x is equivalent to y ' means that in every collection in which

x or y occurs the other may be substituted for it and the collection in question still remain an O -collection.

If two elements in Σ , say p and q , are such that $O(pq)$ is true, then p and q are said to be *obverses*, each of the other. Since it will follow from the postulates of the system that all the obverses of a given element are mutually equivalent, and that every element has at least one obverse, a 'unique representative' of the obverses of x may be chosen and symbolized by $\bar{x}$. Pairs of obverses will turn out to have the properties of negatives in logic.

Any q such that $O(\beta q)$ is true, is called a *complement* of β .

Any r such that $O(\beta q)$ and $O(qr)$ are both true is called a *resultant* of β .

The postulates of the system Σ are as follows:¹

- I. If $O(\alpha)$, then $O(\alpha\gamma)$, whatever collection γ may be.
- II. If, whatever element b_n of β be considered, $O(\delta b_n)$, and if $O(\beta)$ is also true, then $O(\delta)$.
- III. There exists at least one element in Σ .
- IV. If an element x of Σ exists, then y exists such that $x \neq y$.
- V. Whatever pair (p, q) exists such that $p \neq q$, r exists such that while both $O(rp)$ and $O(rq)$ are false, $O(pqr)$ is true.
- VI. If w exists such that $O(\theta w)$, then v also exists such that $O(\theta v)$ and such, too, that whatever element t_n of θ be considered $O(vwt_n)$.

From these assumptions the whole algebra of logic can be derived in such wise that the system Σ has the order of the totality of logical classes. To see this, we must first define the F -relation. If $O(pqrs \dots)$ to any number of terms, we may represent the same fact by $(F(\bar{p}/qsr \dots))$, $(F\bar{p}r/qs \dots)$, $(r/F\bar{p}qs \dots)$, etc., where the rule for transforming the O -collection into the corresponding F -collections is that we introduce a bar, separating any one or more elements of the O -collection from the remainder, and then replace each of the elements on one (either) side of the bar by its obverse.² Since the order of terms in O -collections is indifferent, terms on the same side of the bar in any F -relation

¹ See p. 367 of the paper.

² This definition presupposes the proof of the principle that if $O(pqr \dots)$, then also $O(\bar{p}\bar{q}\bar{r} \dots)$, as well as the proofs which make possible the notation $\bar{p}\bar{q}\bar{r}$, explained above. See pages 367-371 of the paper.

are independent of the particular order in which they are written. Also, it follows immediately from the definition of the relation that $F(pq/\overline{rs})$ and $F(\overline{pq}/rs)$ are equivalent. Where the F -relation holds for three terms, it turns out to be identical with the triadic relation of Kempe, and the Kempean $ac \cdot b$ is thus a special case of the F -relation, namely $F(b/ac)$, or $F(ac/b)$, or $F(a/b\overline{c})$, or $F(\overline{a}/\overline{b}c)$, or $F(b/ca)$, etc., all of which are equivalent. We may, then, define the "illative" relation,—" b is included in c " where b and c are classes, " b implies c " where b and c are propositions, " b precedes c ," where b and c are points or terms in one-dimensional array,—as the special case of any of the above F -relation' in which a is the "zero element," or "null class," or "origin." But these F -relations are equivalent, by definition, to $O(a\overline{b}c)$ and $O(ab\overline{c})$. Hence $b -<_a c$ may be defined to mean $O(a\overline{b}c)$ and $b -< c$ to mean that $O(\overline{o}bc)$. Thus in terms of the totally symmetrical O -relation, the unsymmetrical, transitive dyadic relation which characterizes both serial order and syllogistic reasoning can be defined.

As is well known, the entire algebra of logic may be derived from a class K , the idea of negation, and the illative relation, hence also in terms of the system Σ and O -collections. The 'zero element' or 'null class' is any arbitrarily chosen member with reference to which all illative relations are supposed to be specified. Such an element o itself bears the illative relation to any other, x , since $F(ox/o)$, or $O(o\overline{o}x)$ holds for any element x . The element 1 , the "universe" of the algebra of logic, may then be defined as the negative or obverse of the o chosen. In the system Σ , o and 1 do not differ from any other pair of obverses, apart from the arbitrary choice of a reference element for illative relations. The logical product of two terms, x and y , is then definable as any P such that $F(ox/P)$, $F(oy/P)$, and $F(xy/P)$. The logical sum of x and y is definable as any S such that $F(1x/S)$, $F(1y/S)$, and $F(xy/S)$. P , so defined, will be such that $P -< x$ and $P -< y$, while any w such that $w -< x$ and $w -< y$ will be also such that $w -< P$. For S it will be true that $x -< S$ and $y -< S$, and any v such that $x -< v$ and $y -< v$ is also such that $S -< v$. S and P are, in fact, the "lower limit" and "upper

limit," with reference to the chosen zero element, of all the F -resultants of x and y , an F -resultant being any z such that $F(xy/z)$. These definitions for the product and sum of two elements may be extended immediately to any number of elements, or any collection β , if we replace x and y by "any element of β , however chosen." The usual laws of the algebra of logic, connecting sums and products, terms and their negatives, and the elements 0 and 1 may then be verified for the system Σ . This order of logical entities is contained in Σ in an infinite variety of ways, since any pair of obverses may be arbitrarily chosen for 1 and 0. F -relations and O -relations, not confined to dyads and triads, are capable of representing this order in a generalized form.

There is, moreover, a wealth of order in the system which the algebra of logic, even in terms of any polyadic relation, does not require. It is this difference which renders the system Σ capable of being viewed as a generalized space form.

It follows from postulate V that if $p \neq q$, then there is an element 'between' p and q . The postulate states: Whatever pair (p, q) exists such that $p \neq q$, r also exists such that while both $O(rp)$ and $O(rq)$ are false, $O(pqr)$ is true. $O(pqr)$ or $F(pq/\bar{r})$ gives, by definition of the illative relation, $r -<_o p$ and $\bar{r} -<_o q$ or r is "between" p and q . And $\bar{r}$ must be distinct from p and q both, for otherwise, it follows from the definition of obverses, one of the two $O(\bar{r}p)$ and $O(\bar{r}q)$ will be true. Hence postulate V may be restated in the form: For every pair of distinct elements, there exists an element, distinct from both, between them. It is at once obvious that if the elements be "points," and $p -<_o q$ mean that p is between o and q , postulate V requires that the order of points in Σ should be dense in every direction (with reference to every pair of points). It is further clear that if we take any pair of distinct points, o and z , and postulate t between them, we shall be required to postulate also r between o and t , v between t and z , and so on. Owing to the transitivity of the illative relation, we are thus required to postulate for every pair (o, z) an infinite number of elements in the order $o -<_o r -<_o t -<_o v -<_o z$. Such an ordered collection is continuous. We have already seen that it is dense. It remains to see that it

satisfies the requirement that every fundamental segment has a limit. Consider two selections from the collection, κ and λ , such that if k is any element of κ , every element j such that $j -<_o k$ belongs to κ , and every element l , such that for every element k of κ $l -<_o k$ is false, belongs to λ . There is, then, an element, call it S , such that, for every element k in κ , $k -<_o S$, and if l is any element such that, for every element k of κ , $k -<_o l$, then $S -<_o l$. Such an element S is the 'sum' or 'upper limit' of κ , defined above. Hence every fundamental segment has a limit. Any collection thus characterized by a transitive unsymmetrical relation and continuous order deserves to be called a 'line.' Every pair of distinct elements in Σ determines such a line.

For every pair of distinct points, o and q , there exists p such that $F(oq/p)$ and hence $O(oq\bar{p})$. By the definition of the F -relation, if $O(oq\bar{p})$, then $F(\bar{o}\bar{q}/\bar{p})$. Hence if o and q determine a line, $o \cdots p \cdots q$, there exists also a line, $\bar{o} \cdots \bar{p} \cdots \bar{q}$ or $\bar{q} \cdots \bar{p} \cdots \bar{o}$, in which appear the obverses of all the elements in $o \cdots p \cdots q$. But it also follows from $O(oq\bar{p})$ that $F(o\bar{p}/\bar{q})$, or $q -<_o \bar{p}$. Thus if $o \cdots l \cdots z$ be any line determined with reference to an "origin" o , the line containing the obverses of the elements of $o \cdots l \cdots z$ may be determined by reference to the same origin. And if two elements of $o \cdots l \cdots z$, say m and n , are such that $m -<_o n$, then $\bar{n} -<_o \bar{m}$. If we further consider the order of elements in both lines, $o \cdots l \cdots z$, and $\bar{z} \cdots \bar{l} \cdots \bar{o}$, with reference to the origin o and its obverse $\bar{o}$, the two lines appear as a single line which passes from o to $\bar{o}$ through l , and from $\bar{o}$ back to o through $\bar{l}$. Let m and n be any two elements of $o \cdots l \cdots z$ such that $F(on/m)$. We have $m -<_o n$. Hence $\bar{n} -<_o \bar{m}$. But if we have $F(on/m)$, then also $O(on\bar{m})$ and so $F(\bar{o}\bar{m}/n)$. Hence $n -<_m \bar{o}$. Thus any two elements, m and n , such that m is between o and n , are also such that n is between m and $\bar{o}$. From the transitivity of the illative relation, $m -<_o \bar{o}$. But if $m -<_o \bar{o}$, then from the above $m -<_o o$. Thus we have the continuous line, $o \cdots m \cdots n \cdots \bar{o} \cdots \bar{n} \cdots \bar{m} \cdots o$, or $\bar{o} \cdots \bar{n} \cdots \bar{m} \cdots o \cdots m \cdots n \cdots \bar{o}$, which has so far the character of the projective line with o as

origin and $\bar{o}$ the point at infinity. And if m, n, r , occur in that order in one 'direction' from the origin, then $\bar{m}, \bar{n}, \bar{r}$, occur in that order in the 'opposite direction' from the origin.

Certain further characteristics of order in the system may be mentioned briefly. In general, lines such as those considered above may "intersect" any number of times. From the definition of obverses, $O(a\bar{a})$ and $O(c\bar{c})$ always hold. But by postulate I, if $O(a\bar{a})$, then $O(a\bar{a}\bar{p})$, and hence $F(a\bar{a}/p)$, for any element p . Similarly, if $O(c\bar{c})$, then $F(c\bar{c}/p)$. Thus collections consisting of the F -resultants of different pairs may have any number of elements in common. But in terms of such operations as were in question in the definitions of 'sums' and 'products,' sets of resultants may be determined such that they have one and only one element in common. Thus certain selected lines in the system intersect once and once only. There are any number of such sets.

In general, if any pair of elements in a set are obverses of one another, all the other elements of the set will be resultants of this pair, and their entire array will be "one-dimensional" so far as dimensionality may be attributed to such a collection. The problem of selecting sets suitable for any space form—any n -dimensional array—is the problem of selecting so that O -collections will be excluded. Such sets, containing no obverses, are the 'flat collections' of Kempe. As he pointed out, the excluded obverses will form an exactly similar set, so that 'spaces' come in pairs somewhat suggesting companion hemispheres. In terms of "flat collections," one-dimensional, two-dimensional, n -dimensional arrays, may be specified in any number of ways.

Once the order of the system Σ is generated in terms of O -relations and F -relations, the determination of such more specialized types of order is a problem of selection only. In the words of Professor Royce, "Wherever a linear series is in question, wherever an origin of coördinates is employed, wherever 'cause and effect,' 'ground and consequence,' orientation in space or direction of tendency in time are in question, the dyadic asymmetrical relations involved are essentially the same as the relation here

symbolized by $p -<_v q$. This expression, then, is due to certain of our best established practical instincts and to some of our best fixed intellectual habits. Yet it is not the only expression for the relations involved. It is in several respects inferior to the more direct expression in terms of o -relations. . . . When, in fact, we attempt to describe the relations of the system Σ merely in terms of the antecedent-consequent relation, we not only limit ourselves to an arbitrary choice of origin, but miss the power to survey at a glance relations of more than a dyadic, or triadic character."¹

With this hasty and fragmentary survey of the system Σ , we may turn to considerations of method. It was suggested in the introduction that the procedure here exemplified differs in notable ways from the method of such studies as those of *Principia Mathematica*. In that work, we are presented at the outset with a simple, though general, order—the order of elementary propositions so related to one another that one is the negative of another, two may be such that at least one of them is true, and so on. In terms of these fundamental relations, more special types of order—various branches of mathematics—are built up by progressive complication. In some respects this is the necessary character of deductive procedures in general; in other respects it is not. In particular, this method differs from that employed by Mr. Kempe and Professor Royce in that *terms*, as well as relations, of later sections are themselves complexes of the relations at first assumed. The complication thus made necessary can hardly be appreciated by those who would regard a number, for instance, as a simple entity. To illustrate: In *Principia Mathematica*, the "cardinal number" of x is the class of referents of the relation 'similar to' where x is the relatum.² The 'class of referents' of any relation R is defined as α such that α is identical with x such that, for some y , x has the relation R to y . 'Relatum' is similarly defined. ' m is identical with n ' means that, for any predicative function φ , φm implies φn . I do not pause upon 'predicative function.' α is 'similar to'

¹ Pages 381-2 of the paper.

² I shall, perhaps, be pardoned for translating the symbolism,—provided I do not make mistakes.

β means that, for some one-to-one relation R , α is identical with the class of referents of R and β is identical with the class of relata of R . A 'one-to-one' relation is a relation S such that the class of referents of S is contained in $\mathbf{1}$ and the class of relata of S is contained in $\mathbf{1}$.¹ '1' is defined as α such that, for some x , α is identical with *the* x . 'The x ' is my attempt to translate the untranslateable. The attempt to analyze 'is contained in' would require much more space than we can afford. But supposing the analysis complete, we discover that the 'cardinal number of x ' is ———, where ——— is the definition first given, with all the terms in it replaced by *their* definition, the terms in these replaced by *their* definition, and so on. All this complexity is internal to the *terms* of arithmetic. *And only when this process is complete* can any properties or relations of 'the cardinal number of x ' be demonstrated. An advantage of this method is that the step from one order to another 'based upon it' is always such as to make clear the connection between the two. It preserves automatically the hierarchic arrangement of various departments of exact thinking. The process of developing this hierarchy is tedious and taxes our analytic powers, but there is always the prospect of assured success if we can perform the initial analysis involved in the definitions. But the disadvantages of this complexity can hardly be overemphasized. It is forbidding to those whose interests are simply 'mathematical' or 'scientific' in the ordinary sense. Such a work as *Principia Mathematica* runs great risk of being much referred to, little read, and less understood.

In contrast with such complexity, we have, by the method of Mr. Kempe and Professor Royce, an order completely generated at the start, and such that the various special orders contained in it may be arrived at *simply by selection*. Little or no complication within the terms is required. Involved as the structure of the system Σ may seem, it is, by comparison, a marvel of simplicity and compact neatness. With this method,

¹ More accurately, "every member of the class of referents of S is contained in $\mathbf{1}$, and every member of the class of relata of S is contained in $\mathbf{1}$," because all relations are, in *Principia Mathematica*, taken in the abstract.

there seems to be no assurance in advance that any hierarchic relations of different orders will be disclosed, but we shall certainly discover, and without difficulty, whatever analogies exist between various orders. Again, this method relies much more upon devices which may be not at all obvious. It may not tax severely the analytic powers, but it is certain to tax the ingenuity.

In another important respect, advantage seems to lie with this method. One would hardly care to invent a new geometry by the hierarchic procedure, or expect to discover one by its use. We have to know where we are going or we shall not get there by this road. By contrast, Professor Royce's is the method of the path-finder. The prospect of the novel is here much greater. The system Σ may—probably does—contain new continents of order whose existence we do not even suspect. And some chance transformation may put us, suddenly and unexpectedly, in possession of such previously unexplored fields.

Which of the two methods will prove, in the end, more powerful, no one can say at present. The whole subject is too new and undeveloped. Certainly it is to be desired that the direct and exploratory method be increasingly made use of, and that the advantages of studying very general types of order, such as the system Σ , be better understood.

C. I. LEWIS.

UNIVERSITY OF CALIFORNIA.

INTERPRETATION AS A SELF-REPRESENTATIVE PROCESS

PROFESSOR ROYCE'S doctrine of interpretation has received as yet but little appreciation. Recent critics of the *Problem of Christianity*, which contains the first formulation of that doctrine, have either failed to understand its significance or have been unable to relate it to Professor Royce's earlier teachings. This note is intended to call attention to interpretation as a self-representative process.

What interpretation precisely means must first be made clear. In agreement with the late Charles Peirce, Professor Royce rejects the traditional dichotomy of the cognitive processes into perception and conception, and of the objects of knowledge into particulars and universals, appropriate to these processes. There are objects which can be called neither 'things' nor 'universals' and which are known by neither perception nor conception. Such objects are meanings, aptly called by Charles Peirce, 'signs,' *i. e.*, signs of meaning.¹ The term sign may be taken literally. The sign 'Keep off the grass,' for instance, is both a datum which can be perceived, and it has a general or abstract character which may be conceived, yet as a *meaningful* sign it appeals to a different mode of cognition. The sign addresses itself to one who can read and understand its meaning. One not familiar with the English language can upon seeing the sign still perceive a *thing* and conceive a *universal* quality or character belonging to it, but the *meaning* of the sign will escape him, despite adequate perception and conception. The knowledge of the sign *qua* sign, *i. e.*, *qua* meaning, is, according to Professor Royce, a knowledge *sui generis*. It is interpretation.

Interpretation not only differs from perception and conception in that its objects are meanings, but it is distinguished from them

¹ Professor Royce's definition of a sign: "A sign is an object whose being consists in the fact that the sign calls for an interpretation." *The Problem of Christianity*, New York, 1913, Vol. II, p. 283.

in other respects. While perception and conception involve but two terms—the traditional subject-object relation—interpretation requires three terms. The triadic form of interpretation makes of the knowledge of meanings a social enterprise. A 'sign' must be interpreted *by* some one *to* some one. The interpreter 'mediates' between the sign calling for an interpretation and the one to whom the interpretation is addressed, who, by analogy with an addressee, may be called the 'interpretee.' The three terms may represent three different mental states within the same individual, or sign, interpreter and interpretee may be three different beings or groups of beings.¹ Interpretation is a name for a complex process constituted by a triadic non-symmetrical relation. This 'social' theory of knowledge which requires three terms of a different kind and order for the cognition of any meaning has led Professor Royce, not indeed to alter any of his earlier views concerning the 'world' and the 'individual,' but to deepen and to clarify them.

In yet another important respect interpretation differs from the two traditional cognitive processes. Both perception and conception terminate in their objects, while interpretation is interminable. When perception meets its particular and conception its universal, the knowing process has come to an end. A new particular and a new universal are required for the further operation of perception and conception. Interpretation, on the other hand, is endless, for the accomplished interpretation is itself a 'sign,' a meaning, which requires a fresh interpretative act, the result of which is in turn a new object for still further interpretation, and so on *ad infinitum*.

It is not mere endlessness, however, which constitutes the nature of interpretation. Its endlessness is one which any self-representative process exemplifies. It is the endlessness of a determinate infinite which Professor Royce has expounded in the "Supplementary Essay" to *The World and the Individual*. Professor Royce has himself not emphasized the self-representative character of interpretation. He merely hints at it when,

¹ This doctrine maintains—perhaps no other can—that the knowledge of the 'alter' is as certain or uncertain as the knowledge of one's 'self,' and *vice versa*.

for instance, he says, "By itself, the process of interpretation calls, in ideal, for an *infinite sequence* of interpretation."¹ That any interpretation when once initiated generates by virtue of its own nature an infinite series of interpretations having the relational structure of a self-representative system is implied, however, in the very meaning of the process.

The development "of an infinite multitude out of the expression of a single purpose"² which characterizes a self-representative system is precisely what the single purpose of interpreting a 'sign,' *i. e.*, knowing a meaning, exemplifies. The 'sign' which it is my purpose completely to interpret gives rise to a "recurrent operation of thought" such as, "*if once finally expressed*, would involve . . . an infinite variety of serially arranged facts corresponding to the purpose in question."³ Let it be my purpose to interpret completely the meaning of any 'sign.' The result of the triadic process of interpretation—the expression of the purpose—is a new object of knowledge, a 'sign,' calling for the same interpretative act, the result of which as a new object of knowledge, a 'sign,' requiring once more the same interpretative act, etc., etc.⁴ The self-representative character of interpretation may be expressed symbolically thus:—

Let x = any sign;

" y = " interpreter;

" z = " interpretee.⁵

Then $R(x, y, z)$ = any interpretation, *i. e.*, the triadic relation which unites the sign, the interpreter, and the interpretee into a complex.

But the triad, $R(x, y, z)$, is in turn a sign, requiring interpretation.

¹ *The Problem of Christianity*, Vol. II, p. 150. The italics are mine.

² *The World and the Individual*, New York, 1912, Vol. I, p. 503.

³ *Ibid.*, p. 507.

⁴ It must here be noted that Professor Royce uses the term interpretation to indicate both the *act* of interpreting and the *result* of such act. To say that interpretation as a 'sign' calls for a fresh interpretation is to say that the *result* of an act of interpretation requires a fresh interpretative act. This result, though now a single 'sign,' is logically the compound of previous sign, interpreter, and interpretee.

⁵ It should be borne in mind that y and z may be the same individual.

The new complex will be $R[R(x, y, z)]y', z'$. This again requires a new interpretation which can be represented $R\{[R(x, y, z)]y', z'\}y'', z''$. This process goes on indefinitely. The whole series will run: $R(x, y, z)$. $R[R(x, y, z)]y', z'$. $R\{[R(x, y, z)]y', z'\}y'', z''$. $R[\{[R(x, y, z)]y', z'\}y''', z''']$¹ Each term is a triad one of whose terms is the term preceding the triad in question in the series; thus the series is self-representative. Or, the 'chain' of interpretations thus generated is a self-representative series, each of whose members is a triad, one term of which is the triad's preceding term in the series. It will be readily seen that this self-representative series fulfills all the conditions of self-representation demanded in the "Supplementary Essay" to *The World and the Individual*, Vol. I, pp. 508 ff.

The self-representative character of interpretation shows at once that Professor Royce's new epistemology is no radical departure from his previous theory. The novelty of his doctrine consists in his insistence that the knowledge of meaning is different from the knowledge of 'things' and the knowledge of 'universals.' The knowledge of meaning is a triadic process, but the triadic process as *one* purpose requires for its expression an infinite manifold. Thus, Professor Royce's earlier solution of the problems of the One and the Many, of the Infinite, of the World, and of the Individual receives from his theory of Interpretation additional confirmation.

J. LOEWENBERG.

UNIVERSITY OF CALIFORNIA.

¹ This is mere symbolism; there is no proof, no rigid logical definition attempted.

ON THE APPLICATION OF GRAMMATICAL CATEGORIES TO THE ANALYSIS OF DELUSIONS.

ABSTRACT.

Remarks on Royce's sociological and logical influences. The general nature of Royce's logical seminary: choice of topics. As to the superposition of grammatical upon psychiatric concepts, the reason for choosing delusions. Delusions in the Danvers symptom catalogue and their place in nosological entities. The neglect of delusions by logic and psychology. James's handling of delusions probably over-sensationalistic. Probable value of the psychopathological point of view as illustrated in James's later work. Analysis of certain instances of somatic delusion. Analysis of certain instances of environmental and personal delusions. Contrasting results of the somatic and personal group analyses. Anatomical intimations that the frontal lobes are involved more especially in disorder of personality. Function of impression more likely to employ posterior-lying nerve tissue; function of expression, anterior-lying. Two groups of delusions in dementia præcox, one associated with frontal lobe anomalies or lesions, the other with parietal: the latter delusions fantastic. The pragmatic element in most delusions invites comparison with the grammatical categories of the verbs. Delbrück *vs.* Wundt *re* grammar and psychology. Non-identity of these topics. The four fundamental moods (imperative, indicative, subjunctive, optative). Subjunctive the mood of *will*, optative that of *wish*. 'Stratified' development of these moods. Their relation to human character types. Relation of grammatical moods to logical modality (necessary, impossible, contingent, possible). Importance of getting a clear conception of beliefs from the point of view of the believer. Category of the voice (active, passive, middle). Situation passive with many hallucinations, perhaps reflexive in the case of *Gedankenlautwerden*. Involvement of the first person. Importance of distinguishing the second from the third person from the patient's point of view. Gender and number of persons involved in a delusional situation. Do essentially tetradic situations occur, at least where the number of persons involved is *manifestly* four? Tense-distinctions. Probability that most moods with special names in different languages fall toward either the subjunctive (*e. g.*, potential, conditional) or the optative (*e. g.*, desiderative, precative, jussive?). Pragmatic delusions as subjunctive 'precipitates.' Fantastic delusions as optative 'precipitates.' Summary.

I.

I AM peculiarly glad to speak here in honor of Royce. Especially in recent years I have felt, in my professional work as neuropathologist and as psychiatrist, the effects of Royce's teaching, more particularly of his graduate teaching in the logical seminary, which I have followed omitting a few years only since

1897. I well remember when my training with James and Royce was regarded as something of a disability: it was questioned whether a man with philosophical antecedents could do the work of an interne in pathology! Nowadays we have pretty well worked through that period to one of greater tolerance.

I want to illustrate in this paper a concrete effect of Royce's logical seminary through the employment of its comparative method in a certain special field of psychiatry wherein are to be applied some categories derived from a portion of the science of grammar.

But first a word as to broader effects of Royce's work. I do not speak of his metaphysics, except as it has relation to the social consciousness. My colleague, Richard Cabot, has already to-day spoken of the Royce influence upon himself. In more limited ways, I must own to identical influences, making for a greater interest in social service than is common among physicians. And indeed the sociological influences of Royce have been wide, as may be seen in the chapter "Of Society"¹ in the fourth volume of Merz's *A History of European Thought in the Nineteenth Century*, 1914. Therein Merz sets forth how "no subject of philosophical or scientific interest has been more profoundly affected by it [the spirit of comprehension in opposition to that of definition, or as later termed, the 'synoptic' tendency] than the study of man in his individual and collective existence." After then speaking of new definitions of the social 'Together,' of the 'social self' as opposed to the subjective, Merz ascribes to Royce "the clearest indication of this doctrine," quoting a passage from the papers of Royce contained in early volumes, 1894-1895, of this REVIEW.² I have no specialist's command of the history of these developments, but I am sure that the history of Richard Cabot's justly famous campaign for social service could not be written without reference to Royce's work on the social consciousness. And I know personally that hardly a day passes at the Psychopathic

¹ Merz, J. T., *A History of European Thought in the Nineteenth Century*, Vol. IV. Chap. X, "Of Society," p. 437. Blackwood, Edinburgh, 1904.

² Royce, J., "The External World and the Social Consciousness." *Philos. Review*, 3, 1894; and "Self Consciousness, Social Consciousness and Nature," *ibid.*, 4, 1895.

Hospital in Boston without concrete exemplification of these interests as opposed to the purely medical.¹

What I wish here to set forth is a matter of special psychiatric analysis whose scope and shape have been transformed by influences, not so much of a sociological, as of a logical nature, drawn from Royce's seminary. That seminary has dealt with a great variety of topics from a comparative point of view, although the statistical sciences have not been neglected. Such widely contrasting points of view as those of L. J. Henderson (revolving about the considerations of his book on *The Fitness of the Environment*²) and those of F. A. Woods (revolving about the considerations of his books on *The Influence of Monarchs*³ and *Is War Diminishing?*⁴) have been brought by their authors in the developmental state to the seminary.

The topics of the Seminary over a long period of years have been well-nigh as wide in range as those of, e. g., Wundt's *Logik*,⁵ but their choice has not been governed by any principle such as that of Wundt's *Logik* or by any evident principle except that of the needs of a variety of workers who have for a variety of reasons been attracted to the Seminary. Accordingly, although the principle of a book like Wundt's majestic volumes on *Logik* is probably to some extent aprioristic, or at any rate governed by still more general metaphysical principles than those which the book itself sets forth, the topics of Professor Royce's Seminary have subjected themselves to no special principle; and this despite the fact that the seminary visitors and its moderator have often been tempted into metaphysical digressions. Aside from the personality of the leader, very possibly the effects of the thought of the late Charles S. Peirce and the late Professor

¹ (Southard, E. E., editor), *Contributions from the Psychopathic Hospital* (Department of the Boston State Hospital), Boston, Mass., 1913 and 1914.

² Henderson, L. J., *The Fitness of the Environment, an Inquiry into the Biological Significance of the Properties of Matter*, Macmillan, N. Y., 1913.

³ Woods, F. A., *The Influence of Monarchs, Steps in a New Science of History*, Macmillan, N. Y., 1913.

⁴ Woods, F. A., and Baltzly, A., *Is War Diminishing? A Study of the Prevalence of War in Europe from 1450 to the Present Day*, Houghton, Mifflin, Boston, 1915.

⁵ Wundt, W., *Logik, Eine Untersuchung der Principien der Erkenntnis unter der Methoden wissenschaftlicher Forschung*, 3 aufl., Stuttgart, Enke, 1903.

William James have been most in evidence; more particularly, perhaps, the effects of Peirce's thought.

II.

My special topic may be described as a *grammar of delusions*, or more exactly as an application of a portion of the logical classifications of grammar (and more especially the grammar of verbs) to a portion of the data of psychiatry, viz., delusions (and more especially certain delusions that I call pragmatic or paraprismatic to distinguish them from fantastic or more purely ideational delusions). The connotation of the term *grammar* is therefore not that of the elementary-and-therefore-simple-and-reliable, which the term receives in, say, Newman's *Grammar of Assent* or Pearson's *Grammar of Science*.

My reason for choosing delusions as one member of the comparative system which I proposed to employ as illustrative of the method of Royce's seminary was as follows. First, there was no doubt from an inspection of the records of state hospitals for the insane that delusions or false beliefs of many sorts were among the most frequent of psychopathic phenomena. Secondly, it did not appear that the topic had been taken up seriously either by logic or by psychology.

First, to develop a little farther the frequency of delusions amongst the insane, I may refer to the data of the Danvers (Massachusetts) State Hospital symptom catalogue, unique I believe in its representativeness of routine records of comparatively high standard.¹ Despite the fact that many patients do not exhibit definite delusions of a nature permitting accurate transcription, yet in some 17,000 cases of all sorts of mental disease examined at the Danvers State Hospital, period of 1879 to 1913,² there were certainly no less than 5,000 cases in which the delusions were definite enough to permit being recorded in the case history. No doubt this experience is the pre-

¹ Southard, E. E., *The Laboratory Work of the Danvers State Hospital, Hathorne, Massachusetts*. With especial Relation to the Policy Formulated by Dr. Charles Whitney Page, Superintendent, 1888-1898, 1903-1910.

² Southard, E. E., *A Study of Normal-looking Brains in Psychopathic Subjects, with Notes on Symptomatology* (Danvers State Hospital Material) to be published.

vailing one, and no doubt more intensive histories would greatly augment the percentage of cases characterized at one time or other by delusions.

Such figures of course far transcend the numbers of true 'paranoiacs' (or even victims of paranoid forms of the dementia præcox of Kraepelin), and I should not wish to be understood to say that, in the 5000 or more Danvers cases, delusions formed the head and center of the mental diseases in question.

Yet the number of actual entities (in the medical sense of this term as a kind of collection of symptoms) in which delusions do form a central feature makes a formidable list. I may limit myself to the following actual or possible entities: paranoia, the paranoid form of dementia præcox, and the somewhat closely allied paraphrenia of Kraepelin's recent formula, the so-called acute alcoholic hallucinosis, or insanity of alcoholic origin, a number of forms of pre-senile psychoses, some forms of senile psychoses, to say nothing of various forms of syphilitic mental disease, as also manic depressive psychosis, various mild or severe psychopathic conditions not ordinarily considered to amount to frank mental disease, and even such apparently remote entities, or groups of entities, as are found under the caption of epilepsy and feeble-mindedness.

So much will suffice to show the frequency of delusions among psychopaths and the probable magnitude of the problem for the science of psychiatry. I need not here discuss the somewhat large psychiatric literature of delusions. I confess that the literature in question has struck me as a little barren or at best the threshing over of old straw by the application of categories borrowed, *e. g.*, from Herbart or Wundt to material that neither had ever concretely considered.

Secondly, to develop a little farther the logical and psychological neglect of the topic. The logic of fallacies, *e. g.*, in Alfred Sidgwick's excellent work,¹ makes not the slightest draught upon psychiatric data, not merely perhaps because the delusions of

¹ Sidgwick, A., *Fallacies, a View of Logic from the Practical Side*, The International Scientific Series, Appleton, N. Y., 1884. *Distinction and the Criticism of Beliefs*, Longmans, Green, London, 1892.

the insane are not prominently fallacious (at least some of the most serious and important of insane delusions) but because a logician would never spontaneously think of going to psychiatry for logical material.

But also and more markedly perhaps, it would be somewhat easy to show that delusions, especially of the insane, have been too largely neglected by the psychologists. Even James, in whose work may be seen remarkable influences of his psychopathological point of view, deals with delusions of the insane in a very few brief pages.¹ For example, he cites insane delusions along with alternating selves and mediumships as a type of abnormal alterations in the self, quoting Ribot upon our personality and Griesinger upon the 'doubleness' of self, of the 'struggle of the old self against new discordant forms of experience,' 'the opposition of the conscious me's,' etc. Again, James quotes from Krishaber a case of the well-known metaphysical type of delusions with feelings of unreality. In a footnote to his chapter on the perception of things, James quotes a list of certain special delusions given by Clouston, suggesting that in many cases "there are certain theories which the patients invent to account for their abnormal bodily sensations," "that in other cases they are due to hallucinations of hearing and sight." James here also defines a delusion "as a false opinion about a matter of fact which need not necessarily involve, though it often does involve, false perceptions of sensible things."

How rationalistic, nay sensationalistic, are these latter definitions just quoted from James! The point is urged that the data of reasoning are as it were poisoned at the sensory source. Theories are invented, or hallucinations supply data.

This, as it seems to me, over-rationalistic account of delusions is the more remarkable in James because the whole trend of his thinking was surely bent by his medical or psychopathological point of view. Those of us who have confidence in the psychopathological method may indeed feel that the key to a thorough-going theory of belief may be found in a study of delusions; namely, of false beliefs.

¹ James, W., *The Principles of Psychology*, Henry Holt, N. Y., 1890, Vol. II Chap. XIX, "The Perception of 'Things,'" footnote, p. 114.

I should like to dwell on the James point of view here, because I think his progress subsequent to the *Principles of Psychology* and culminating in *The Varieties of Religious Experience*¹ shows a drawing-away from the sensationalistic point of view to a very overt voluntarism, under which, had James considered the problem of delusions, he might well have dealt with them as perversions of will rather than false conceptions or conceptions based on false perceptions, hallucinations, or strange bodily sensations.

It is difficult not to think that the logical method at the bottom of James's *Varieties of Religious Experience* is not essentially the method of psychopathology despite the careful guarding of the point of view from certain misconstructions in the initial chapter of that work, entitled "Religion and Neurology." As when James states concerning the phenomena of religious experience that "When I handle them biologically and psychologically as if they were mere curious facts of individual history, some of you may think it a degradation to so sublime a subject and may even suspect me, until my purpose gets more fully expressed, of deliberately seeking to discredit the religious side of life." James, it will be remembered, furnishes a concrete example in George Fox, pointing out that whereas the Quaker religion, which he founded, is something which it is impossible to overpraise, yet Fox's mind was unsound, and from the point of view of his nervous constitution, he was a psychopath or "detraqué of the deepest dye."

To be sure, we do not need to guard the results of an analysis of insane delusions with such cautious remarks as the above concerning the psychopathic varieties of religious experience. Yet I am inclined to believe that whether or no the point of view of psychopathology is more important than that of the classical psychology in the analysis of belief, at any rate the possible contributions of psychopathology have been singularly neglected.

Accordingly, some years ago I started some superficial and

¹ James, W., *The Varieties of Religious Experience, A Study in Human Nature*. Being the Gifford Lectures on Natural Religion delivered at Edinburgh in 1901-1902. Longmans, Green, London, 1902.

orienting analyses of delusional material,¹ the results of which I wish to present briefly here, partly to show the general nature of the material.

My first systematic work dealt with somatic delusions² and the result was decidedly sensationalistic and quite aptly illustrated James's remark above quoted concerning "theories which the patients invent to account for their abnormal bodily sensations." In fact it was only when one passed from somatic to personal and environmental delusions that what I have called the sensationalistic hypotheses seemed to fail.

To quote a portion of the conclusions drawn from the work on somatic delusions, "the concept of the *crystallization of delusions around sensorial data of an abnormal sort* must be entertained for some delusions at least." More in detail, "In one group of cases (Cases I, II, III, possibly VIII) the psychic rendering of the somatic states is rather critical and temporary, and follows a process somewhat comprehensible to the normal mind. (Type: "*shot by a fellow with a seven-shooter*," in a *spot found to correspond with a patch of dry pleurisy*.)"

"In others (Cases IV, V) the psychic rendering is less natural and is more a genuine transformation of the sensorial data into ideas quite new. (Type: "*bees in the skull*" found in the case with cranial osteomalacia.)"

"In others (Cases VI, VII) the problem is raised whether severe hypochondria, with ideas concerning dead entrails and the like, may not often indicate such severe somatic disease as tuberculosis. The psychic rendering here is of a more general (apperceptive?) sort."

A somewhat generalized account of this conception was presented in more popular form by my friend Dr. Franz in the *Popular Science Monthly*.³

¹ Southard, E. E., and Mitchell, H. W., "Melancholia with Delusions of Negation: Three Cases with Autopsy," *Jour. Nervous and Mental Disease*, 1908, Vol. 35.

Southard, E. E., and Fitzgerald, J. G., "Discussion of Psychic and Somatic Factors in a Case of Acute Delirium Dying of Septicemia," *Boston Medical & Surgical Journal*, 1910, Vol. 162.

² Southard, E. E., "On the Somatic Sources of Somatic Delusions." *Jour. Abnormal Psychology*, December, 1912-Jan., 1913.

³ Franz, S. I., "Delusions," *Popular Science Monthly*, January, 1915.

A second paper on environmental (or, as I called them, following Wernicke, allopsychic) delusions¹ yielded the in one sense negative result that environmental delusions seemed to trace back in most instances to temporally or logically prior disorder of personality. I raised then the question whether delusions often spread inwards (egocentripetally) or habitually outwards (egocentrifugally), a concept later to be illuminated by the concept of the voice (active, passive, or reflexive) in which the patients habitually or characteristically moved.

I found that, to quote a later paper on delusions of personality,² "put briefly, the deluded patient is more apt to divine correctly the diseases of his body than his devilments by society." Or more in detail "these delusions having a social content pointed far more often inwards at the personality of the patient than outwards at the conditions of the world. And case after case, having apparently an almost pure display of environmental delusions, turned out to possess most obvious defects of intellect or of temperament which would forbid their owners to react properly to the most favorable of environments. Hence, we believe, it may be generally stated that the clinician is far less likely to get valuable points as to the social exteriors of his patients from the contents of their social delusions than he proved to be able to get when reasoning from somatic delusions to somatic interiors."

A word is perhaps necessary to guard against too sweeping conclusions. "In a few cases it seemed that something like a close correlation did exist between such allopsychic delusions and the conditions which had surrounded the patient—the delusory fears of insane merchants ran on commercial ruin, and certain women dealt in their delusions largely with domestic *debâcles*. But, on the whole, we could *not* say that, as the somatic delusions seemed to grow out of and somewhat fairly represent the conditions of the soma, so the environmental delusions would appear to grow out of or fairly represent the environment."

¹ Southard, E. E., and Stearns, H. W., "How Far is the Environment Responsible for Delusions?" *Jour. Abnormal Psychology*, June-July, 1913.

² Southard, E. E., "Data Concerning Delusions of Personality. With Note on the Association of Bright's Disease and Unpleasant Delusions," *Journ. Abnormal Psychology*, Oct.-Nov., 1915.

I need quote from only one more paper on the delusion question. The papers above mentioned deal chiefly with cases whose brains looked normal to the naked eye, the material having been chosen as nearest to normal. In another study I deliberately took up perhaps the most abnormal material that we possess in psychiatry, namely, subjects of general paresis,¹ a disease now regarded as a form of brain syphilis. Incidentally I found that the somatic delusions, despite the grave brain damage of paresis, tended to show somatic sources, precisely as had the normal-brain material. When it came to allopsychic (environmental) and autopsychic (personal) delusions, it appeared that these delusions were statistically associated with lesions of the frontal lobes, and that cases without frontal emphasis of lesions were not at all apt to be delusional or, for that matter, to be specially subject to grave disorder of personality.

Now it might not be at once obvious to those who have not followed the progress of brain physiology whither these frontal lobe findings would speculatively lead. I shall develop the matter merely to the point of justifying the choice of the grammar of verbs rather than that of nouns for comparative purposes (I bear in mind that I have not yet justified the choice of grammar at all for such purposes).

There has been, ever since the discovery attributed to Charles Bell of the different functions of the posterior and anterior spinal nerve roots, a growing mass of data concerning the posterior situation of the sensory arrival-platforms (a term of F. W. Mott) and the anterior situation of the motor departure-platforms. The evolutionary complications of the bulb and indeed of the whole rhombencephalon and of the isthmus cerebri did not succeed in abolishing this general tendency to the posterior situation of the sensory arrangements, despite their sidewise pushing in certain regions.

The posterior-lying cerebellum is regarded as a sensory organ despite its indirect chief function of modifying muscular activity

¹ Southard, E. E., and Tepper, A. S., "The Possible Correlation between Delusions and Cortex Lesions in General Paresis," *Jour. Abnormal Psychology*, Oct.-Nov., 1913.

in certain ways. Then the physiologists found a variety of sensory spheres more posteriorly lying in the cerebrum. Sherrington found that the fissure of Rolando had tissue behind it that must be regarded as receptive in nature and tissue forward of it that must be regarded as motor. Moreover, different parts of the precentral gyrus serving face, arm, and leg were found to lie immediately adjacent to receptive tissues for the self-same structures lying back of the Rolandic fissure in the postcentral gyrus.

Accordingly it appeared that the nerve tissues exhibit a somewhat general law to the effect that the function of impression is likely to employ posterior-lying tissues, whereas, anterior-lying tissues are likely to be related with the function of expression, and this law is likely to find expression not alone in the simple spinal cord but also in the complicated cerebral cortex.

If it were permissible to draw psychological conclusions from this law as applied to the cerebral cortex, it might be plausibly mentioned that consciousness, in so far as it is cognitive, whether those cognitions are visual, auditory, or kinæsthetic, is rather more likely to employ posterior-lying tissues than anterior-lying ones in the cortex. Campbell¹ indeed gave utterance to the suspicion that consciousness is a function of the posterior association center of Flechsig. I am personally inclined to this view.

It is clear then that to find delusions related to frontal lobe disorder, *i. e.*, to disorder of forward-lying tissues was at first surprising. Delusions or false beliefs have the ring of consciousness, of cognition, of ideas. The falsity of these ideas is somehow taken as residing in the ideas; at least that is the tendency of the analyst. Hence, if one were seeking cortical correlations for false beliefs taken as ideas essentially and intrinsically false, one would be apt to turn forthwith, not to the *frontal* lobes, but say to the parietal lobes.

Surprises in the nature of results diametrically opposed to expectation are somewhat frequent in neurology as elsewhere. I had been astonished to find, in the obscure quasi-functional but probably in some sense 'organic' disease dementia præcox, that

¹ Campbell, A. W., *Histological Studies on the Localization of Cerebral Function*, Univ. Press, Cambridge, Eng., 1905, esp. p. 206.

the symptom katatonia, a highly motor-looking symptom, tended to associate itself with posterior-lying tissues.¹ In the same disease, delusions tended to relate themselves with frontal lobe lesions. Not only were delusions found to be based as a rule on frontal disease and katatonic symptoms on parietal lobe disease, but an equally strong correlation was found between auditory hallucinations and disease of the temporal lobe. Of course the correlation between auditory hallucinations and lesions of the temporal lobes might be *à priori* expected, but the writer at least did not suspect beforehand the possibility of any relation between katatonia (a condition in which hypertensive states of the muscles occur, sometimes amounting to actual *flexibilitas cerea* and catalepsy) and disease of the parietal region. In point of fact, the strikingly cataleptic cases of my series seemed to be often associated with gross lesions of the post-central gyrus, thus giving rise to a suspicion that the condition katatonia or catalepsy is actually due to a disorder of kinæsthesia, or at all events of the tissues which are in some sense the seat of kinæsthesia. This, then, is an example of one of the perennial surprises of observation. An apparent disorder of motion seems to resolve itself into an actual disorder on the afferent side.

Equally surprising in an opposite direction was the correlation of delusion formation with disease of the frontal lobes. As elsewhere stated in this paper, a rationalistic or sensationalistic account of delusions would naturally lead us to think of brain disorder in the sensorium. In point of fact, the parts of the brain which are best entitled to the name sensorium seem to be free of gross lesions and anomaly except in a comparatively small hyperphantasia group. To quote from conclusions of a paper on *Dementia Præcox*, "The non-frontal group of delusion-formations the writer wishes to group provisionally under the term *hyperphantasia*, emphasizing the overimagination or perverted imagination of these cases, the frequent lack of any appropriate

¹ Southard, E. E., "A Study of the *Dementia Præcox* Group in the Light of Certain Cases Showing Anomalies or Scleroses in Particular Brain-Regions." On the Topographical Distribution of Cortex Lesions and Anomalies in *Dementia Præcox*, with some account of their Functional Significance, *Am. Jour. Insanity*, Vol. LXXI, Nos. 2 and 3.

conduct-disorder in the patients harboring such delusions, and the *à priori* likelihood that these cases should turn out to have posterior-association-center disease rather than disease of the anterior association-center. This anatomical correlation is in fact the one observed."

To sum up the argument to this point, delusions of the insane have been chosen for comparative study because of their frequency as symptoms and their centrality in many important mental diseases. Furthermore, because of their neglect by logic and by psychology. There is, however, a likelihood that psychopathological methods will aid both logic and psychology. Somatic delusions do, it is true, afford some basis for a sensationalistic theory of delusions and indirectly of belief in general. But delusions affecting personality are perhaps better regarded as will-disorders or disorders of expression. At any rate, the writer's views were governed by his anatomical results in general paresis and in dementia præcox, which seemed to show that the majority of delusions were related to frontal lobe disorder. On general grounds the frontal lobes seem to the writer to be best regarded as organs for the elaboration of motion (including attitude, conduct, and the like). Of course the existence of essentially ideational delusions, here called fantastic, must be conceded: these beliefs are as it were *prima facie* delusions and do not require individual and specific testing in experience to determine their falsity. Such delusions were found in one disease (dementia præcox) related with parietal lobe anomalies or other lesions. However, the accuracy of the anatomical observations and their future confirmation are not essential to the argument. Nor is it necessary to consider the parietal lobes as an expanded and elaborated sensorium and the frontal lobes as an expanded and elaborated motorium in following these contentions. In point of fact, the pragmatic element in many or in all delusions is perhaps obvious to inspection, and the existence of a fantastic group of delusions, not requiring much pragmatic testing, is not unlikely on general grounds.

Assuming, then, for the moment that the value of comparing the categories of grammar with those of psychiatry is conceded

and that delusions have been chosen for a test of such comparisons, it becomes obvious that the strong motor, expressive, pragmatic element in delusions immediately invites comparison with the categories of the verbs.

III.

I am so ignorant of the theory of grammar that the present section of my paper must be very brief. At the outset I must perhaps say that the value of comparing categories of two sets of scientific data would be much diminished if those data happened to have been analyzed by the same group of men or under the same dominant logical interest. Had the theory of speech-function, language, grammar, and cognate materials been elaborated by the same technique as the materials of psychiatry, then the chances are that the comparisons here intended would be of lesser value. Luckily for these purposes, unfortunately perhaps for others, it would appear that the psychology which dominates philology and comparative grammar is not especially modern, and is indeed Herbartian. On the other hand, the development of aphasia doctrines and cognate matters in psychiatry has not considered to any extent the developments of philology, comparative grammar, or even the anthropology that has grown hand and hand with linguistics.

The ideas of Delbrück¹ about grammar and the ideas of Wundt about speech have undergone insulated courses. Steinthal and Paul seem to have been Herbartians, and Delbrück seems to have followed them. After Wundt's publication of large volumes on *Sprache*,² Delbrück brought out a little book of critique,³ regarding many of the Wundtian contentions about speech as unwarrantable applications of personal and unproved psychology. Wundt replied in another small book.⁴ There was no sign of unanimity.

¹ Brugmann and Delbrück, *Vergleichende Grammatik der Indogermanischer Sprachen*, 1886-1900.

² Wundt, W., *Volkerpsychologie, Eine Untersuchung der Entwicklungsgeschichte von Sprache, Mythos und Sitte*, I Bd., *Die Sprache*, 1900; H. 2, 2 Aufl., 1904.

³ Delbrück, *Grundfragen der Sprachforschung, mit Rücksicht auf W. Wundt's Sprachpsychologie Erörtert*, Strassburg, 1901.

⁴ Wundt, W., *Sprachgeschichte und Sprachpsychologie mit Rücksicht auf B. Delbrück's Grundfragen der Sprachforschung*, Leipzig, 1901.

For our purposes this situation is on the whole advantageous, since we can trust the categorization of grammar to have proceeded without immediate and constant overhauling in the progress of psychology. Humboldt, Jones, Bopp, Grimm, Pott, Binfry, Schleicher, Brugmann, Whitney, and Delbrück himself are names of men hardly touched by psychology or logic. In fact the *Junggrammatiker* with their suspicion of metaphors in the whole range of their science would probably look on an incursion of psychology into philology as a genuine raid. They would probably recall with heart-sinking older efforts at a universal grammar, at a 'metaphysics of language'! There might indeed be a suspicion that somehow the psychological raiders were going insidiously to introduce still more deadly poisons into the already defiled wells of grammar than the 'bow-wow' or 'pooh-pooh' theories.

The present plan is more modest. Probably the streams of logic now current in linguistics and psychology parted as long ago as Kant. The categories of neither science have had much effect upon the other. Occasional references are made by expounders of the one science to the injurious effects of a possible resort to the other. Probably a 'nerve-brain' theory of linguistics would be regarded by philologists as hardly a degree removed from dangerous metaphors derived from 'natural' sciences, of which examples are cited especially against Schleicher. Giles says,¹ e. g.: "Schleicher and his followers in the middle of the nineteenth century had taken a keen interest in the development of the natural sciences, and had to some extent assimilated their terminology to that employed in those sciences. It was, however, soon recognized that the laws of language and those of natural science were not really alike or akin." Thus, by appeal to higher authority, are guarded the preserves of special theory.

However, on the other hand, in discussing these considerations with psychologists and philosophers, I find signs of an opposite tendency. A friendly critic remarked that he had always supposed that psychiatry and psychology could derive much aid from linguistics, in view of the obvious fact that thought and language

¹ Giles, P., "Philology," *Encyc. Brit.*, eleventh ed., Vol. 21, p. 431.

are so largely identical in mechanism. This contention was that in studying linguistics one is studying a branch of psychology and that in studying psychology one is nowhere or almost nowhere free from speech analogues. And, in the same direction, one is aware how much of the development of brain-localization theory in psychiatry is built up on analogies to the conditions prevailing in aphasia. The psychiatrist would here recall the efforts of the Wernicke school,¹ beginning with sensory aphasia and culminating in apraxia.

As against such contentions I find numerous objections to the employment of linguistic theory in the elaboration of logical and psychological doctrine. The logicians in especial seem aggrieved at the perverted usage of sentence-structure in syllogistic theory and are constantly calling attention to the pitfalls of language in respect to logic. Charles Peirce remarks² how much the logician Sigwart seems to depend on the expression of immediate feeling as logical, and how Sigwart considers language and especially the German language as the best vehicle of logic. It will be recalled how much attention is paid to 'substantive' and 'adjective' ideas in some of James's chapters. The reaction of most readers to the idea of 'but' or of 'if' runs, I suppose, to the effect that something figurative probably lies at the bottom of the linguistic analogy.³

We are often warned both by grammarians⁴ and by psychologists not to trust overmuch to the situation depicted in Indo-European comparative grammar, *e. g.*, in the work of Berthold, Brugmann, and Delbrück. Thus the principles of the isolating Chinese, the agglutinating Turkish, the polysynthetic North American Indian languages are said to be impossible of establishment by means of terms borrowed from the Indo-European grammar.

¹ Wernicke, C., *Grundriss der Psychiatrie in klinischen Vorlesungen*, Thiéme, Leipz., 1900, 2. Auflage, 1906, "Psycho-Physiologische Einleitung," S. 1-78.

² Peirce, C. S., "Modality," *Baldwin's Dict. Philos. and Psychol.* Macmillan, N. Y., 1902, Vol. 2, p. 92.

³ James, W., *The Principles of Psychology*, Chap. IX, "The Stream of Thought," esp. pp. 243-8.

⁴ Wheeler, B. I., "Language," *Baldwin's Dict. Philos. and Psychol.* Macmillan, N. Y., 1902, Vol. 1, p. 618, esp. 621.

Upon a superficial inspection of grammar we chose to believe that something of value to the theory of delusions, at all events to their nomenclature, could be obtained by a study of the theory of verbs in grammar. If the polysynthetic languages have no verbs, it is nevertheless undeniable that action is expressed by North American Indians. If incorporated languages often insert the object in the verb, yet at any rate the Basques are able to express action. If the Semitic verb has no tenses and merely expresses relations, yet at any rate there is a concept tense, which concept could be expressed by Semitic speakers. These examples suffice to hint at the great extent of the field of comparison.

I choose to study the grammar of verbs for the purpose of getting light on delusions or beliefs involving action. Much will be to the purpose, much not. In any event the grammatical nomenclature will not have been built up by psychologists or psychiatrists. We shall not identify grammar and psychology: we shall merely hunt for identities and analogies.

There is some indication that in Indo-European grammar there are four fundamental moods, imperative, indicative, subjunctive, optative. A discussion like that in Goodwin's *Greek Moods and Tenses*¹ exhibits some of the ingenious and appealing problems of these moods. Probably the germ of my desire to approach the present considerations was got from casual reading of the discussion by Goodwin of Delbrück's contentions concerning the subjunctive as a mood of *will* and the optative as a mood of *wish*.

The simplest verb forms seem to be the imperatives, bare stems as a rule. How readily these could be derived from cries, simple vowel calling, or at any rate simple articulations, early in man's development, can be readily imagined. The early world of the savage and the babe gets on to a considerable range of power with imperatives and the kindred vocatives.

Indicatives may then develop or, if not temporally prior to

¹ Goodwin, W. W., *Syntax of the Moods and Tenses of the Greek Verb*. Revised and enlarged. Ginn, Boston, 1890. Especially Appendix, "The Relation of the Optative to the Subjunctive and other Moods," p. 371-389, with specific references to Delbrück.

the subjunctives and optatives in verb-form development (and I suppose there are not enough comparative data from different linguistic groups to permit a general answer to such questions), then in any event logically prior. The world of language is full of statements, true or false, affirmative or interrogatory.

Figuratively presented, the linguistic verb stratum of imperatives is spread over with a layer of indicatives, which the increasing tranquility of life permits and produces. Imperatives and vocatives are less necessary, less polite, less useful, since past and future facts can now be held and turned over in the mind.

Gradually there may develop at the two poles of the language structure the moods of will and wish, to use Delbrück's terms. The development *might* of course be that, as a result of the operation of the fancy, the layer of the indicatives should be overlaid by a stratum of optatives, to which a number of *false* indicative statements might have made a convenient transition. Then further the layer of wishes *might* be topped with the layer of subjunctives, *i. e.*, of hypotheses, conditions, probabilities, and the like.

As we see men and women, however, I am inclined, for the present at least, to hold to the notion that the subjunctive and optative developments (of course always as mental reactions, *not* as verb-forms necessarily) take place rather independently. To be sure, the absolute deliverances of the *Utinam! Would that!* optative type do surely resemble imperatives rather than indicatives. And the more complicated machinery of a sentence containing a subjunctive immediately suggests the regularity and finish of the indicative. Both the subjunctive and the optative, however, have a derivative appearance and suggest the necessity of indicatives as at any rate logically prior to their formation. Hence, as above stated, I prefer to see the optatives and subjunctives rising as it were as separate eminences from the plateau of indicatives, and this despite the fact that special pipes may lead from the underlying imperatives to the moods of wish.

Perhaps I should here insist that the point of such a metaphor-

ical account of a certain aspect of verb-forms is not at all to offend any modern representatives of the *Junggrammatiker*. Above all, such an account has nothing historical or glottogonic about it. The point, if well taken, is logical not historical.

The student of human character and especially the alienist is at once aware that this fourfold division of moods (imperative, indicative, subjunctive, optative) fairly well corresponds with human character groups. Especially is this true of the subjunctive-optative contrast.

Who cannot see the scientific man as a man of hypotheses and probabilities, viz. of subjunctives, and the artistic man as a man of wishes and fancies, viz., of optatives. 'If me no ifs,' impatiently cries the poet to the man of science. 'The wish is father to the thought,' sadly or crabbedly the scientific man replies.

Such reflections as these, rather than genetic linguistic considerations, suggested the comparisons of the present paper.

More or less instructive comparisons between these fundamental moods and the classical temperaments might be made: thus, choleric, imperative; phlegmatic, indicative; melancholic, subjunctive; sanguine, optative. Probably the choleric and sanguine temperaments suit the imperative and optative moods more perfectly than do the others. There remains, however, something apposite in them all. It would not be difficult to show similar analogies between these four moods and the character types of Malapert, for example.

To sum up, at this point, after stating in Section I the *raison d'être* of these comparisons, the general reasons for choosing delusions as the *comparand* were stated in Section II, at the end of which section it was stated that the grammatical *comparator* must be from the region of the verbs. Section II had called attention to the pragmatic element in the majority of delusions, throwing this element into contrast with the ideational one. Some special reasons from brain physiology and from the writer's anatomical studies were adduced in explanation of the pragmatic element in delusions. These physiological and anatomical notions were not essential to the logical argument. But the fact

that somatic delusions seemed to crystallize about sensorial data (and were consequently rather more of the nature of illusions) and the fact that there seems also to be a second group of fantastic delusions (also more of a sensory nature and as it were illusions of memory and overplay of imagination) are two facts that tend, by the relative infrequency of their appearance, to emphasize the fundamental importance of the pragmatic element in most delusions. Most delusions are not *prima facie* false beliefs, but require the test of time and experience to prove their nature. This is but another way of stating their pragmatic, or at any rate their motor and expressive, character.

In Section III, a brief sketch has been offered of the situation in grammatical science, which seems to have developed along a path separate from that of the mental sciences, such as logic, psychology, psychiatry. The categories, nomenclature, and classification of grammar have therefore a certain independence from those of the mental sciences. Delbrück and Wundt do not give exactly. The section is finished by a brief statement as to the four moods (imperative, inductive, subjunctive, optative), which Indo-European grammar has shown to be fundamental. A figure of speech recalling the strata of geology is offered wherein the earliest practical situation in the development language is depicted as a layer of imperatives, next a layer of indicatives, and thereupon the subjunctives and optatives. Possibly these latter have a certain independence of development and spring from different parts of the plateau. The optative or mood of wish may possibly derive more particularly from the imperatives.

The next section will take up in order the most striking features in the categorization of the verbs which seem to be applicable to delusions.

IV.

Dismissing discussion as to choice of delusions as an object of comparison, and assuming that the pragmatic element in delusions is strong enough to suggest comparison with the most active and motor categories of grammar, I had proceeded in Section III to point out the independent development of the mental sciences on the one hand and grammatical science on the

other and to indicate in the briefest manner the characterological interest of the grammatical moods.

In the present section, I propose to rehearse some categories of the grammar of verbs that seem to me of theoretical and even of some practical value in the analysis of delusions. It is unnecessary to insist that the impetus to such comparisons is logical rather than psychological. It is not that thought and speech, pragmatic beliefs and grammatical moods, delusions and modal over-use or perversion, have developed *pari passu*. They may have developed *pari passu*, and speech may be as central in thought as aphasia is in the Wernickean psychiatry; but, if so, the point and origin of these comparisons did not lie in that identity.

Are there not logical categories ready to hand which are superior to any that may have developed in grammar? Notable is the fact that many logicians strongly condemn the grammatical infection of logical processes and the allied situation presented by the necessity of describing many logical processes in words. But, aside from the verbalism of much logic, let us consider a moment the logical modalities in comparison with the grammatical moods (or, perhaps better, modes).

There is a certain relation between the modalities of logic¹ and the so-called modes or moods of grammar. The distinctions of *possible*, *impossible*, *contingent*, and *necessary* are of obvious value in describing a variety of situations. In describing the actual facts that correspond to beliefs and delusions, these modalities are most exact. Or, if the 'actual facts' are not to be obtained, these modalities are of the greatest service in denoting what A thinks about B's statements, *e. g.*, what the alienist thinks is the truth about his patient's delusions. These modalities are of value in objective description. It is even possible to point out the vicinity of the concept *contingent* to the concept *subjunctive*, of the concept *possible* to the concept *optative*. It could almost be said that the *necessary* is not far from *imperative*. This would leave us with the *impossible* to

¹ Peirce, C. S., "Modality," *Baldwin's Dict. Philos. and Psychol.* Macmillan, N. Y., 1902, Vol. 2, p. 92.

correspond with the *indicative*, and perhaps, with the idea of Charles Peirce concerning the range of ignorance as corresponding with that of knowledge, some argument could be made even for the vicinity of the concept *impossible* to that of the *indicative*. In any case the *impossible* is well known not to be the opposite of the *possible*.

It must be clear from the comparisons here sketched that the classical modalities, *possible*, *impossible*, *contingent*, *necessary*, are of little immediate classificatory service for delusions or even for beliefs. Neither is there enough known offhand about any situation to make sure of affixing the proper modal description to the said situation, nor can the contentions of the believer or the paranoiac be subjected to experimental tests for the same purpose.

Accordingly, though the modalities of logic may be far more accurate and more representative of species of truth than the grammatical moods, yet the grammatical moods will perhaps prove more useful in immediate descriptions of belief-situations from the point of view of the believer, e. g., of the deluded patient.

What we have long wanted in psychiatry is some way of getting at the psychic interiors of our patients. It is a safe injunction to hold fast from the first to the patient's point of view. The familiar Freudian distinction of manifest and latent¹ contents looks in this direction. But, omitting altogether at first any alienists' constructions as to latent contents, the examiner who adheres overtly to what is manifest in his patient's story is too apt, according to my experience, to fail to distinguish between what is true to the patient and what is true to the alienist. Let us distinguish what is *latent* in the patient from what is *manifest* in the patient. But let us distinguish between what is manifest to us *in* the patient from what is (to the best of our belief) manifest *to* the patient. Identical precautions are surely observable not only for patients but in the evaluation of all sorts of direct evidence.

One of the most valuable of the grammatical categories under which to consider a delusional situation or any belief-situation

¹ Freud, S., *Die Traumdeutung*, Deuticke, Wien, 1900.

in which the believer attributes a change in the universe is the category of the *voice*. Again it is important to distinguish the actual situation as the examiner views it from the situation as the patient or witness views it. We stick to the latter. Does the patient view himself as in the active voice, or in the passive voice, or perhaps in the middle (reflexive) voice? The question cannot often safely be asked in so simple a form. But it is as a rule singularly easy in a few questions to elicit from a deluded patient what he believes as to his own passivity or activity in the situation as he conceives it to be altered.

Perfectly simple is the felt passivity in certain victims of hallucination. The patients are here as passive as any recipients of sensation, and the whole reaction may be one of fixation or fascination *prima facie* passive. On the other hand, in cases of so-called *Gedankenlautwerden*,¹ the insistence of the hallucinatory or quasi-hallucinatory voices may be as intense but is not necessarily one of felt passivity. The patient may be best described as in the middle voice: his conscience is at work, the still small voice is no longer small or still, he himself is somehow the source of his difficulty. Further reasoning may discover additional non-personal reasons or ancient active sins that are conceived by the patient to be actually responsible for the trouble. But this further reasoning is not necessarily faulty or in any sense delusional and may even be as objective as the alienist's own analysis. Indeed the patient may reason from manifest to latent as skilfully as the alienist or may even mislead the alienist by means of constructive or over-evaluated happenings of the past, which may then be taken falsely as actual objective happenings. And such constructions or distorted facts may prove new *points d'appui* for false beliefs. But the fact that this merry logical dance may be led both by patient and by examiner is not here in question. The point I am endeavoring to make is that the voice in which the patient's situation (to our best belief as to the patient's own point of view) can best be expressed is an important category of classification. Several alienists to whom I have submitted the point are in entire agreement with me and

¹ Cramer, *Die Halluzinationen im Muskelsinn bei Geisteskranken*, Freiburg, 1889.

regard the felt or conceived activity, passivity, or reflexivity of the patient as a surprisingly comprehensive characterization for the total situations presented by many deluded patients. That is to say, though it might be thought *à priori* that a given patient would rapidly shift in his deluded state from active to passive to reflexive (and permutably), yet the facts are commonly against these rapid shiftings of the felt 'voice.' Of course the phases do not always take so long in the evolution as in Magnan's *délire à évolution systématisée*,¹ now presented by Kraepelin in slightly modified form as *paraphrenia systematica*.² I shall not here enter special psychiatric questions; but limit myself to saying that in practice a given delusional phase in a patient is commonly well enough characterizable in a word as active (*e. g.*, certain states of delusional grandeur), as passive (*e. g.*, certain states of delusional persecution), or as reflexive (*e. g.*, certain states of self-accusation). The terms are good brief accounts of what I more cumbrously designated formerly³ in such terms as 'ego-centrifugal,' 'egocentripetal,' 'spreading outwards,' 'spreading inwards,' and the like. Only the term reflexive is not so familiar and may need replacement with hyphenates of the term 'self,' or even with 'solipsistic,' 'egoistic,' though these latter terms are often too active in their denotation.

The fact that a situation may be described with correct grammar either in the active or in the passive voice need not trouble our analysis. So also can delusions. The point is not to identify grammatical voice with a type of delusional situation, but to borrow from grammatical categories a classification suitable for delusional situations.

Nor need a fact such as that in certain Indo-European developments the passive verb-form grew out of the reflexive verb-form be taken as of more than suggestive value. That fact might or might not be of telling value in such an analysis as ours.

¹ Magnan, "Leçons cliniques sur les maladies mentales faites à l'asile Sainte-Anne," *Gazette méd. de Paris*, 1877, and *Progrès médical*, 1887-1891. Also Magnan et Serieux, *Le délire chronique à évolution systématique* (Masson, Paris, no date).

² Kraepelin, *Psychiatrie, ein Lehrbuch für Studierende und Aerzte*, 8 Aufl., Bd. III, 1913.

³ Southard, E. E., "Data Concerning Delusions of Personality. With Note on the Association of Bright's Disease and Unpleasant Delusions," *Jour. Abnormal Psychology*, Oct.-Nov., 1915.

Central in our considerations of the believer's active, reflexive, or passive voice is clearly the personality of the believer. We are thus naturally led to the possible comparative or suggestive values of the grammatical person. The grammatical concept and the common sense concept of person are to some extent obviously identical. The vast majority, if not the entire group, of psychopathic delusions may be said to revolve about the first person. The concept of the first person (singular) together with that of the voice synthesize to a concept which makes a fairly complete characterization of at least the majority of delusions. Delusions of grandeur as a rule readily reduce to the active voice and the first person singular: the predicate situations are often numerous and mutable. Delusions of persecution reduce as readily to the first person in the passive voice. Reflexive is the situation of the first person in delusions of self-accusation. Much of psychiatric interest doubtless awaits a grouping of other sorts of delusions even with so slight a logical armamentarium as this.

The second person is often involved in delusions. If we adhere to a projection of the delusional universe always from the patient's point of view, it must be clear how important is a distinction of second and third person. Taken from the psychiatrist's point of view, the *dramatis personæ* may well all seem to be in the third person, except perhaps the patient with whom the psychiatrist may feel like starting a small new drama of their dual own. But, if we adhere as ever to a construction from the patient's point of view, the difference between the *you* of the patient's plight and the *he* or the *she* may be decisive. Thus in minds working more or less on normal lines, it is hard to conceive homicidal ideas directed at a *him* or a *her*. The threats must far more often lodge with a *you*. On behalf of some *you*, the patient might conceivably try to do to death a somewhat otherwise uninteresting *him* or *her*. But the majority of delusional situations are doubtless far more apt to be egocentric.

It may prove of special interest whether hallucinations of hearing come from a conceived *you* (as in a conversation or a monologue) or from a conceived *him* or *her*. There must be far greater intensity and dramatic quality about the statements of some *you* than from a third person.

It is entirely feasible to construct the situation of these other persons from the standpoint of grammatical voice. This has recently arisen in some cases that have come to my attention of *folie à deux*, in which the so-called 'active' and 'passive' persons may need separate analysis. And, in situations far less psychopathic, the psychiatrist has often to execute an about-face of this sort to get at the reactions of the grieved or angry husband or wife.

I have had to mention gender in the previous paragraphs. Krafft-Ebing and Freud have sufficiently called the world's attention to the sexual situations that occur in or make for psychopathies of various sorts. The routine collector of delusional elements must however bear in mind the necessity of establishing the sex of all the *dramatis personæ*, whether for the purpose of establishing or destroying some of the more recondite Freudian hypotheses or for the more modest purpose of banal social adjustments.

The value of the number of persons is not quite so obvious. How many persons are involved in the universe of belief or of delusion? Of course the scene may be peopled with any number of persons all acting normally even from the patient's point of view. But how many are acting abnormally either as sources of effect upon the patient, or as the objects of his action or perhaps as the instruments of his action? Are there perhaps some who may be fused and are working as a collective unit (the family, union-members, etc.) from the patient's point of view? Perhaps here is the weakest point in the routine analysis of delusional situations. The number of persons may be one, two, three, several, many, almost everybody, everybody, indeterminate, etc.; but all that can be collected concerning the number (and obviously the sex) of the persons involved, so far as the patient conceives them to be acting or suffering abnormally, will be found of the greatest value in analysis. Increase or reduction in the catalogue of intra-delusional persons may prove of value in prognosis. I should not need to insist on a special record of persons remaining extra-delusional, *i. e.*, excluded from the universe of the patient's altered world, when by all signs such persons would naturally be involved.

Most delusions of the lucid group which we can hope to analyze represent situations at least dyadic from the standpoint of the objective examiner. They are often triadic, *e. g.*, delusions of jealousy. But it must not be forgotten that a dyadic situation may conceivably be monadic from the point of view of the patient, as when he conceives that the altered attitude of a relative is not really injurious. But obviously enough there remains the suspicion that the situation, even from the patient's point of view, is effectively dyadic. Again delusions of jealousy may masquerade as dyadic.

Whether there is any important group of essentially tetradic delusional situations is worth inquiry. Among fictional situations as depicted by novelists, the tetradic situation with double shifting of courtiers is not unusual, though it may well be a more symmetrical situation than the world itself is apt to show. So far, I have not found many good instances of essentially tetradic delusional situations, *i. e.*, when the elements are persons. In numerous instances where four persons are involved, the fourth turns out merely ancillary to the third and to disappear, as it were, by the identity of indiscernibles. But this needs much concrete case analysis.

The important tense-distinctions of verb-forms recall the importance of the time element in delusions. Some of Delbrück's designations for general time relations of action are suggestive, *e. g.*, iterative, frequentative. Terminative actions, those conceived to have a beginning, an ending, or both, suggest obvious distinctions as to conceived delusional situations. Of course the stock case-history should and often does contain a sufficient account of these matters, as the term *history* insists. Still, I fear that we do not always keep separate in mind the objective anamnesis (to use a frequent medical term) and the anamnesis or catamnesis as the patient describes it and believes it to have occurred. Thus the one noxious event in the whole history may have occurred as it were aoristically at a special moment or brief period, and the rest of the history may seem to the patient an entirely natural train of consequences. In the direct or indirect psychotherapy, so apt to be employed in all

sorts of not-yet-defined delusions, quite a different technique might need to be employed for the delusional universe with an aoristic event long past than for a universe with iterative factors or with 'present perfect' characters, etc.

I arrive once more at the perhaps central topic of the moods. At the conclusion of the last section I spoke of the major distinctions as to moods, so far as the most thoroughly studied Indo-European grammar is concerned. I shall not in this paper deal intimately with the topic, as I conceive that much more case analysis should be available than I have as yet looked over.

But I wish to call attention to the vast wealth of special designations of moods which are found in the gradually increasing group of languages now being brought under scientific study. Most of these moods appear to me to fall rather readily into one or other of the subjunctive and optative groups. Thus the *conditional* certainly belongs with the subjunctives, and might perhaps be thought to offer a better general designation for the group. So too the *potential*. But *desiderative*, *precative*, *jussive*, probably belong with the optatives. As to the verb-forms and their special origin and appearance, the logician can have little to say. The point is, rather, that, if a verb-form exists to which a special name has been given, then at least some special shade of meaning has been thought to exist by the grammatical analyst. This shade of meaning probably expresses some rather concrete belief of *intra vitam* origin, not cooked up for a special purpose or at least for any psychiatric purpose.

I have more or less in hand a collection of these mood names from different grammars, of which a set probably large enough for these purposes is in existence at the Boston Public Library. The publication of the British and Foreign Bible Society¹ gives a convenient large list of languages, those in fact into which the Bible has been translated.

I hope to show, but will shortly dismiss here, the possibility that the transformation of 'subjunctive' beliefs into 'in-

¹ Darlow and Moule, *Historical Catalogue of the Printed Editions of Holy Scripture in the Library of the British and Foreign Bible Society*, Bible House, London, 1903, esp. Part IV, Indexes.

dicative' ones means paranoia of a pragmatic sort, whereas an identical transformation of 'optative' beliefs leads to delusions of the fantastic sort. 'Transformation' may be better rendered figuratively by such terms as degeneration, collapse, crystallization, condensation, degradation, etc.

V.

The object of this paper has been to illustrate the method of Royce's logical seminary at Harvard. No attempt has been made to describe the method, which is comparative rather than observational or statistical.¹ When the logician superposes the categories of Science A upon the material of Science B, or compares the categories of both, he is not at all sure of important results. If he obtains too extensive or too numerous identities by means of his comparisons, he may be compelled to decide that identity of categories means actual unity of materials. Thus, in the present instance, the reader may be the more ready to swallow the identity of certain categories in grammar and psychopathology, simply because he fundamentally believes in a larger degree of identity of speech and thought. In the event of such a nominalistic view as that, the only merit of the present essay would consist in spreading a sound method over new materials of the same sort; the method would not then be comparative in a very rich sense of the term. But, even if speech and thought are as closely allied as, *e. g.*, Max Müller thought them to be,² the fact still remains that the categories of linguistics and of psychology have not been wrought into their present form by the same group of men or under the same group of interests. If there is a partial identity of scientific materials, there is no evidence of identity of categories. The comparative method will then obtain a certain scope, even if that scope is limited to trying-out of special methods devised by linguists inexperienced in technical psychology.

I hesitate to set forth the point; but I am left with a queer impression that linguistics falls short of representing logic in

¹ Royce, J., "The Principles of Logic," *Ency. Philos., Sci.* I, Vol. 1, *Logic*. Macmillan, London, 1913.

² Müller, F. Max. *The Science of Thought*, Scribner, New York, 1887.

somewhat the same way that psychopathology falls short of representing psychology. I do not so much refer to the prevalence of concepts like 'phonetic decay,' 'empty words,' 'anomalism,' etc., in linguistics, although these concepts certainly suggest human frailty quite outside the frame of classical logic. I do not wish to construct a false epigram to the effect that linguistics is a kind of pathology of logic, attractive as this epigram might be. My point is that human facts are got at more readily in linguistics and in psychopathology than in logic and in so-called normal psychology.

For example, if I try to determine the logical modality of something and to affix the proper epithet (necessary, impossible, contingent, possible), I sink into a morass of factual doubts. But, equipped with the fundamental grammatical moods (imperative, indicative, subjunctive, optative), I can dismiss my doubts by describing them under one of these mood aspects, regardless of objective reality, truth to me, truth to Mrs. Grundy, or any situation except that depicted by the statement in question. The grammatical moods deal with evidence unweighed; the logical modalities require more weighing of evidence than is as a rule humanly possible. Psychopathology also deals with evidence unweighed. Particularly is this true of that portion of psychopathology which deals with false beliefs. Granted that some beliefs are *prima facie* fantastic and to us incredible. By the patient these fantastic and incredible beliefs are believed, but the nature and history of these fantastic beliefs may well be investigated to learn whether we are not dealing with a so-called wish-fulfilment (a Freudian technical term) or with a kind of degradation of what the linguist might term an optative attitude. But the majority of false beliefs are not *prima facie* fantastic and incredible. They on the contrary require the test of experience. They represent pragmatic situations. Granting the truth of certain hypotheses, we say, these beliefs might be accepted also as truth. Our thesis is that these pragmatic delusions do not represent a conceived wish-fulfilment, if by wish is meant a fancied situation. On the other hand, these pragmatic delusions appear to hang rather upon the degradation of a subjunctive

attitude, that is, upon taking as true a certain hypothesis. But neither fantastic nor pragmatic delusions can readily be classed under the logical modalities, *e. g.*, as possible or contingent, however possible and contingent they actually seem to the patient. In any event they are or will shortly turn out to be impossible, logically speaking, and, if the patient were to ascribe any logical modality thereto, he would be likely to deal in necessities on the one hand and impossibilities on the other. Grammatically speaking, the degraded optative belief may even set into an imperative, and beliefs degraded from both the optative and the subjunctive appeal to the patient as indicative, if not yet imperative.

From our superficial study of the categories of grammar as they revolve about the verbs, we have come upon two considerations of value that are not entirely obvious, the psychopathic analogue of the grammatical 'voice,' and the question of two main types of delusion degraded respectively from 'subjunctive' and 'optative' attitudes.

I believe that the 'voice' distinction will forthwith appeal to all psychiatrists as valid within its range. The distinction seeks to express the relation between the world and the individual from the individual's point of view under two forms, (*a*) that in which the self is active and (*b*) that in which the self is passive in relation to the environment; but in the third place (*c*) the relation of the individual to himself is suggested, *viz.*, under the 'middle' or reflexive relation. Whether the reflexive relations of the self break up further into a group where the 'I' dominates the 'me' and another where the 'me' overpowers the 'I' (that is, whether the ego is sometimes active in respect to itself and sometimes passive), is a question partly of fact, but more of the nature of the self and of the whole difficult topic of self-activity.

Whether the distinction between pragmatic delusions (as it were, precipitated subjunctives) and fantastic delusions (as it were, precipitated optatives) is valid, must remain undetermined. The distinction has at least the value of suggesting a similar distinction in human character in general; both distinctions may be derived from identical psychological facts.

If in the practical handling of a patient, or indeed of anyone else in a situation hard to interpret, the observer can make out the 'voice' of the subject's situation from the subject's point of view, and can secondly determine whether the difficulty rests upon trouble with hypotheses or trouble with wishes, much is gained surely.

We saw also from our incidental study of person, number, and gender how important might become the question of monadic, dyadic, triadic, or polyadic situations involving false beliefs. The collection of groups of such situations for analysis is certainly indicated, naturally with invariable reference to the 'voice,' active or passive, of the patient or central figure. Fiction and drama could throw some light on these matters.

In the gathering of data for analysis, it is clear also that the time-relations must also be studied from the patient's point of view, to the end of determining whether the particular subjunctive precipitate has relation to some central point in the past, whether the particular optative precipitate has relation to a present or present perfect situation, or whether other 'tenses' come in question.

E. E. SOUTHARD.

BOSTON STATE HOSPITAL.

LOVE AND LOYALTY.

ONE who like me has gone to Royce for wisdom now this long time and never come away empty, may yet live to know that some of his receivings are more his belongings than others. Thus if it ever happen to me that I find my hold on the Absolute slackening and the thing slipping from me, I cannot think that even in that day I shall have forgotten two words I have heard. Love and loyalty, loyalty and love: this pair I expect will still be singing its burden in my soul after other things have left off singing there. But I hope that when this day comes I shall know better than I do now whether love and loyalty are two names for the same thing, or whether they are not the same, yet brothers and friends, or whether in the end they are not rather enemies of which one can survive only if the other doesn't. Nor do I know, though I should very much like to, how Royce himself would answer these questions. Sometimes the words fall in such close juxtaposition in his writings that I wonder whether they do not express a single idea whose peculiar quality is just unselfishness. But again I bethink me that to be just unselfish is not enough for an absolutist, if for anyone; that giving up can only be justified when it is a means of acquiring, and I wonder what loyalty can have to say for itself half as convincing as the things love could point to. Until at last I find myself speculating whether if love had its perfect way with us there would be any place left for loyalty in our lives, and whether we should not look back on it then as on a virtue happily outlived.

And this may be my matter in a nutshell—is not loyalty a thing to be outlived and is not that which alone can enable us to live it down a love so perfect it calls for no sacrifices? Some such thought has long been with me, but if I am to lay my troubles before you it is time I put aside a language too rich in sentimental associations and took up the idiom I love best, that of cold and if may be mathematical definition.

Any definition of loyalty that could have meaning for me must assume the existence of something many deny to have either existence or meaning, and which I shall call in my own way the mind of a group, or a group mind. The conception of a mind belonging to a group of beings each one of which has a mind of its own, yet such that the mind of the group is no more to be known from a study of its parts than is the mentality of Peter from the psychology of Paul, is a very old conception and perhaps for that reason supposed by some to be old-fashioned and foolish. It is a mere analogy, they say, and a very thin one at that, to speak of a group of organisms as itself an organism: it is Plato, it is Cusanus, if you will, but it is not modern. Benedetto Croce even goes so far as to be polite about the matter. "The State is not an entity, but a fluid complex of various relations among individuals. It may be convenient to delimit this complex and to entify it for the sake of contrasting it with other complexes. No doubt this is so, but let us leave to the jurist the excogitation of this and the like distinctions,—fictions, but opportune fictions—being careful not to call his work absurd. It is enough for us to be sure we do not forget that a fiction is a fiction."

To Royce the group mind is far from being a fiction, though he may prefer to call it by some other name than group mind,—maybe universal mind or universal will. But if to him it seems natural, as it does to me, to recognize group minds while to Croce the entity is but a polite fiction to be pleasantly dismissed there must be some lack of definition befogging our issue. Nor can I think of any way in which old issues can better be made clear than by old images. Aristotle would not have asked when and where do new entities appear, but where and when must we take account of new forms. Now matter was informed for Aristotle when the behavior of some class of beings was recognized to be predictable in terms of purpose. Thus earth, water, air, and fire sought their proper places, one below, another above, and the others in between. But we remember how no sooner had these elements reached their proper places than transformed by the sun's heat they were no longer at home

where they found themselves, but must needs seek their new homes anew. Thus homeward bound in opposite directions they collided and became entangled, so that mixtures of the four appeared which as it proved kept their proportions for a longer or shorter while ere they lost their equilibrium and fell apart again. Among these mixtures were vegetables and animals and men, but Aristotle is very far from defining this new class, organisms, in terms of the quantities of the elements that enter into their bodily composition. No, what they have in common and all they have in common is a new purpose, that of self-preservation (and, if we are to follow Aristotle rigorously, that of type preservation). But why in this class of beings does a new form appear when there is nothing in any one of them but so much earth, so much water, and so much of the rest? Because, I take it, in order that the purpose of the group may be realized, the purpose of each constituent of that group must be defeated: when the earth in us finds its way back to earth and our fire to fire, then we are no more. Which is the fundamental difference between us and them: if we win they lose; if they win we are done for. The whole has a purpose whose realization is only possible if the purposes defining the parts are given up for it.

I suppose Croce would say that nothing better could be offered in support of a modern fiction than an ancient fable, and I confess that I can think of nothing better fitted to set forth the complex problem of how beings of one mind can combine to form groups of another mind, than Aristotle's account of the way elements in the form of mechanism combine to produce a group with that other form, life. Perhaps I can make out the connection between old and new ideas by a single example. I know of no fellow easier to get along with than your average Parisian: many a time have I sat at his board, looked in his eyes, listened to his amusing wit, and wondered how the great-grandfather of my host could have been part of the Reign of Terror. And yet I suppose the Parisian of today is not very different from the Parisian of four generations ago, when groups of these same Parisians were ranging the streets of Paris crying, "A la lanterne!"

However much it was in the character of the Pierre, Paul, Jean, and Jaques Bonhomme of those old days to steer for home, their distributive tendency was contradicted by their collective tendency. A new form, a new entity had appeared: it was the spirit of the mob. It may be pleasant to call such new entities fictions, but wouldn't it be a more dangerous fiction to suppose these new entities pleasant, and isn't the object we have defined as hard and fast a fact as any in human experience?

I must let this single illustration take the place of what might at some other time grow into a systematic account of the varieties of group minds that history and personal experience reveal to us. For my world is highly organized,—groups within groups and groups within these in a way one might have learned at the feet of Nicolaus or by gathering one's history from Gierke's *Geschichte des deutschen Rechts*. But on this occasion instead of going into all this literature and all this philosophy, let me come back to the matter of loyalty's worth. There would be no such thing as a demand for loyalty were there no call for a man to deny his wish for home, whether home be on earth or on high for him, for the sake of organizing himself into a group, which means as we have seen sacrificing his purpose for the group purpose. Now what you think of the value of this sacrifice depends altogether on the esteem in which you hold group minds. If you can find some principle on which to estimate their dignity as something worth dying for in part or altogether, then loyalty may be the last word of virtue. But if you find that at their very best there is something rather primitive, sometimes amœboid, sometimes tigerish about such minds, then you should seriously consider whether your biped soul owes anything more to this polypod entity than the entity owes to it. Merging oneself into something big may not be just the same as reaching for something high.

But I am not belittling loyalty. It is a great virtue so long as it understands itself to be making a virtue of necessity. Just so is it a great virtue to acquire equanimity in the face of death, so that not being able to invent a way of getting around the thing one may accept it for the time being without disturbing

oneself or one's friends more than the episode calls for. Still if I had some genius to spend, I should rather contribute it to the suppression of dying than to the cultivation of a cheerful manner in dying. So should I rather spend my time if it were worth while in wearing away the conditions that make loyalty necessary than in developing a spirit of loyalty. And so, or I mistake him, would Royce; for I can't get over the impression that for him too loyalty is but a half-way house on the road to something better—which something better is love.

It is with relief I find a definition of love can be effected which makes no very heavy demands upon one's sentimental experience, in fact requires no more in that way than a fair understanding of the theory of substitutions. For the peculiar quality Royce finds in the idea of love is that love individuates. This its quality is for him its virtue also and its excellence, so that the more love individuates the more is it love. We are far enough from the days when a Plato could hold the love to be higher that had detached itself from the individual and attached itself to the quality, had forgotten the beautiful being to think only of his beauty. For Royce love is not love unless it has succeeded in making its object irreplaceable.

Now I do not know whether this constitutes a complete definition of love. There is something hopeful about the suggestion that it may do so, for if no one has been able to say anything very articulate about love, neither has anyone said much that is intelligible about individuation. But certain difficulties occur to one. Is love the only thing that individuates? If there is such a thing as Platonic hate, which I suppose would be the sort of hate that hates the sin and not the sinner, why should there not be such a thing as a romantic hate whose object would be just the sinner and not his fault? Or may not a process of individuation go on, cold and impassible, untouched either by hate or love?

One day Flaubert took his disciple by the hand and led him into the secret places of art. The talent of the artist, he said, is a long patience spent in learning how to portray so that your

portrayal leaves the object it offers just as individual as the thing it found. "When you pass a grocer sitting at his door, or a concierge smoking his pipe, or a stand of cabs, show me this grocer and this concierge, their pose, their physical appearance, suggesting also by the skill of your image all their moral nature, in such wise that I do not confuse them with any other grocer or with any other concierge. And make me see with a single word in what a certain cab horse is unlike fifty others following him or going before."

Why then, beside love and hate, art too claims to be that which individuates,—and not because, if we may believe a certain philosophically minded critic, art has borrowed anything of love or hate. This disciple of Flaubert, this Maupassant, carried out his master's teachings if ever an artist did, but there is that in his way of doing it which makes one feel that Anatole France's account of him is not altogether wanting: "He is the great painter of the human grimace. He paints without hate and without love, without anger and without pity,—hard-fisted peasants, drunken sailors, lost women, obscure clerks dried up in the air of the office, and all the humble folk whose humility is without beauty and without merit. All these grotesques and all these unfortunates he shows us so distinctly that we think we see them with our own eyes and find them more real than reality itself. He is a skilful artist who knows he has done all there is to do when he has given life to things. His indifference is as indifferent as nature."

I am not so very confident that all these claimants to the right of individuating—love, hate, art—are equal claimants. As for hate, some poverty of experience may account for the fact that all I know of this romantically valued emotion is directed against persons unknown whose manner of conducting themselves on the earth beneath and in the waters under the earth shows nothing more clearly than that they have forgotten the human being and are utterly lost in loyalty. A hate of such poor quality cannot well be said to individuate, and it is certainly not any experience of my own that would lead me to suppose romantic hate as we

have imagined it to be real. Respecting the impassibility of the creative artist I am no less skeptical, and so I think is France at bottom, for of this same artist whose indifference is as indifferent as nature he says in another passage of the same appreciation that his hardened hero "is ashamed of nothing but his large native kindliness, careful to hide what is most exquisite in his soul."

No, I am not convinced that love has any rivals in the art of individuating, and if not, then to call it that which individuates is to define it completely. But whether it is a deduction from this definition or whether it is an independent element in a fuller definition of love, it must be set down as an important fact about it that love wants the will and desire of the beloved to prevail. It wants the will of another to prevail, and as the easiest and most obvious way of bringing about this result is to yield its own will, it has generally been supposed that love was less the art of individuating than the art of yielding. But this is just the mistake that has prevented love from taking its place among the more seriously meant categories of philosophy and realities of life; for this yielding disposition that might be supposed to make for peace in a republic of lovers is the very matter which introduces trouble and perplexity there. It is the very matter which has made traditional Christianity less effective than it might have been, failing where it fails not because there is anything better to be conceived than its gospel of love, but because it has supposed a good heart and convinced will was enough to bring about its kingdom.

Our two great experiments at loving—the love of man and woman and the love of one's neighbor—have been too much alike in this, that they both supposed love to be the sort of thing one could fall into and be done with. But it is clear this is not at all the way of the matter, and in our poor imaginings about the lovers' republic we have been too much guided by our imperfect experience of what our loves have been to think our way into what the love that individuates ought to be. Oh, yes, our love has yielded; its great vice has been its contentment in yielding

rather than suffer the labor and unrest of that thinking which alone could have saved its kingdom. In this dear, illogical passion for yielding we have been content with a division of the spoils: one is allowed to give this, the other that; one now, the other then, and so we have patched up our lovers' quarrel as best we could without logic. But logic, which is supposed to have nothing to do with love and has had little enough to do with the old loves of this world, has everything to do with the love that individuates. For the moment love begins to be a mutual affair neither lover has the right to usurp the privilege of giving, else what is left for the other lover to do? Without logic our lovers are doomed to stand bowing to each other before the door of promise till time grows gray.

However, besides logic there is such a thing as bad logic, which is perhaps nothing more than a well meant half-thoughtfulness in presence of puzzling experience. As a result of this half-thoughtfulness there has sometimes crept a half-reasonableness into the matter we are considering, which would begin by suggesting that the various and contradictory desires of lovers, though equally strong, cannot, save by improbable chance, be equally high and worth while; that therefore the logical thing to do would be to let the lower ideal recognize the higher and bow to it, while the higher might somehow forget its longing to give and content its poor heart with being given to.

There are many difficulties in the way of making such an account of the affair persuasive, but there are more serious troubles ahead of anyone who would try to make it meaningful. Chief of these is the hopelessness of defining high and low in the matter of purposes and ideals. Here once more Royce is quick to analyze the difficulty and remove it; for, if I read him aright, he sees no way, and no more do I, by which the value of ultimate objects of desire may be compared. It is easy to calculate the better means but how is one to know the better end? Only this may we do—we may discover that purposes which seem contradictory are not really so, and that neither need sacrifice itself to the other if thought be allowed to work its perfect work. No

doubt happiness lies in getting what we want, but this is not the same as getting what we think we want, as capturing what we go after, for our wants are none the less difficult to make out because they are our own.

This, then, is thought's infinitely difficult task in the service of love, to analyze apparent desires until it has found the real want at the core of appearance, while the postulate on which alone the advent of the kingdom becomes possible is that thought may find our real wants not contradictory. The times are not without sign that Christianity as an ethics is coming to realize how very intellectual is the task it has set itself in trying to bring the kingdom of Christ's vision to be on earth. What Christianity most needs, writes Tennant, is a philosophy.

The twenty minutes we allow ourselves for our communications have usually proved ample for a person of industry and thrift to make himself thoroughly misunderstood, and I hope I have used them to no less purpose on this than on former occasions; but among the misunderstandings I would prevent if I could is that which would sum up the matter of my paper as a defense of individualism against collectivism. Such an issue could only be meaningful for one to whom the collectivity was denied some sort of individuality which the 'individual' enjoys. But I have tried to show that I could conceive no such difference between the mind of the part and the mind of the group. The group mind may be loved with the human love that individuates as well as can the soul of a fellowman, and no doubt one may love one's country as a mistress. But the difference between the love of equals and the love of constituents is plain. The latter sort of love can last only so long as its object endures, and as long as it lasts its sacrifices are incurable; for in a world that has conquered strife there would no longer be that contradiction between the will of a group and the will of its parts which alone makes the group entity meaningful. Groups bound in mutual respect of each other and studying to preserve their parts irreplaceable have no minds; the entity born of struggle and calling for sacrifice has simply disappeared; where we had a group mind, we have

now but an aggregate of minds, 'a fluid complex of relations among individuals.' But the love of equals can push on toward the ideal without destroying the very object of its devotion; it can go on searching the core of concord in the stupid appearance of discord until love has found a way to make loyalty a lost virtue and a group mind a thing that is no more.

E. A. SINGER.

U. OF PENNSYLVANIA.

JOSIAH ROYCE AS A TEACHER

IF duration of discipleship is any criterion, my eight years as a student under Professor Royce should entitle me to speak of him as a teacher. For three years as an undergraduate and five as a graduate student I enjoyed the privilege of his instruction face to face. Outside the classroom I have now been learning from him the meaning of my own thoughts for just thirty years, as I first began to read his writings in 1885.

I.

I think it was in 1886 that I first tasted the full flavor of his teaching when in a thesis on the ethical doctrines of his first book I pointed out with proud distinctness thirteen ways in which he had strayed from the path of truth and ventured to differ from me. I left Professor Royce's ethical philosophy such a hopeless wreck that I was apologetic in presenting to him an attack so full of 'frightfulness.'

Then it was that I learned of him my first memorable lesson,—how to take criticism—even the most unintelligent criticism. He seemed really delighted with my onslaught. Indeed I do not remember that he ever showed as much genuine pleasure in the reception of any of my subsequent weighty writings as he did when I fired at him this broadside of heavy metal—quite irresistible and crushing as I viewed it from the gunner's standpoint. My later and milder effusions never seemed to please him so much.

This behavior of his took me completely aback. Like other undergraduates of average pugnacity I hated and repelled criticism because it was a dangerous attack on the strongholds of entrenched truth behind which I carried on the daily business of life. That there existed on the earth a being who could tolerate—yes, actually welcome criticism, contradiction, and attack, was to me a brand new fact, one that made me blink and stagger at first, but later opened my eyes to a new and most

comfortable reality. For it gradually dawned on me that Professor Royce understood my objections, received and felt them acutely, and yet, *mirabile dictu*, was not demolished by them.

Might it not be, then, that I too could open my ears to those who had the temerity to differ from me, might receive their bit of sincere experience and use it without being upset by it? That first lesson from Professor Royce made an epoch in my life. I still believe that it contained one of the most important truths that I or any other belligerent thinker can learn. For he shocked me into perceiving that a man could really welcome a difference of opinion not merely with the sort of politeness that prize fighters display when they shake hands before the first round,—not merely with diplomatic suavity or cynical tolerance,—but as a precious gift.

I saw that Professor Royce really understood all that I meant when I attacked him, really took it in. Indeed he could restate it better than I. This had never happened to me before. When I differed in argument with Palmer, Santayana, or James, I never felt that they understood my point. They could answer me, refute me, perhaps; but they never came into my entrenched camp and fired my own guns for me with an aim better than my own.

This, then, is, I think, one of Professor Royce's chief characteristics as a teacher. He can understand, welcome, and incorporate better than any man I have known a view which attacks his own. Thus in my case at least he prepared the way for my conversion. In the course of a few months I came to see that the thirteen points of error which I discovered in Professor Royce's ethics were in fact thirteen points of misunderstanding or of fractional understanding. As soon as I followed his method and succeeded in understanding the doctrines I had been attacking I came to see that the remaining point of difference concerned chiefly the forms of wording. I still thought that some of his ethical doctrines were unwisely expressed or were weighted too heavily on one side; but his openness to see my points made it necessary, in common decency, that I should enlarge my mind

sufficiently to take in his. In the end it was conversion to me in the sense of new experience. Rewording was not enough. I had to stretch my mind to get in the new ideas. But I got the courage to attempt this ever painful process from the contagion of Royce's example. He showed me by example as well as by precept how to use one's mind,—how to be genuinely converted without giving up the substance of the belief which had made one previously resist conversion. That example has always been one of the richest fruits of his teaching to me and I believe to many others.

II.

A second and contrasting feature of his teaching comes out clearly in his seminaries—namely his searching and rigid criticism of views that betray culpable ignorance of the history of philosophy. Professor Royce assumes that by the time a student is fit for seminary work he has no right to be innocently ignorant of the history of thought. He must have some awareness of what he does not know. A man is bound to know something, he holds, of the main historic outlines of thought about the subject he deals with. The sharpest and most destructive criticism that I have ever heard from him was designed to impress it upon the advanced student that philosophy means scholarship as well as speculation. The student's well-known tendency to launch forth on the tide of his own unaided meditations, profoundly ignorant of what Aristotle, Spinoza or Kant has had to say about it—is firmly checked by Royce in the interests of good scholarship.

No other teacher of philosophy in my time has carried into his seminaries so full and living a consciousness of the historic stream of philosophic thought. No one else gave me so salutary a sense of how small a chip was sufficient to float my entire stock of ideas along that majestic current. No one else gives us such shocks of disillusionment, when we hear from him and later read up sadly in the originals how many times our own fresh thoughts have been stated and better stated before, and how completely—perhaps—our views have been refuted.

III.

It is further characteristic of him to assist in discussion the weak and wavering views of the muddleheaded or timid student and to direct his most searching questions at the trenchant and self-confident speaker. In seminaries that I attended a man would deposit before us some shapeless and incoherent views. Royce would melt them down in an instant and reissue them to the astonished student, new minted, clean and finished. Then with almost miraculous innocence and sincerity he would inquire, "Would you accept that as a fair account of your main thesis?" Would I accept it! Will a man kindly allow his Alma Mater to double his salary? Will a man be so kind as to accept the Nobel Prize? The chances are that he will.

One year we had informal meetings of the whole department of philosophy with the seminary students. I was fencing one evening with Santayana and getting the worst of it. Stroke by stroke he drove me to the wall till finally he was just about to impale me with the thrust of an unanswerable question, when swiftly Royce cut in and answered the unanswerable for me. I had an instant to breathe and gather my wits. I recognized (was it not a strange coincidence?) that Royce's parry to Santayana was the very one I was about to make, and following wisely this safe line of defence I escaped with my skin.

But this rescue was made not merely because of any desire to keep up the game. It was because he thought the truth was suffering from a poor defence. That provoked his instant aid. If on the other hand error was making a particularly showy and effective presentation through the mouth of some 'tough-minded' student, Royce's criticism took on edge and was pushed home to the very end. The wind was tempered to the shorn lamb but not to the seasoned and heavy fleeced sheep.

IV.

I regard it as one of Professor Royce's greatest achievements as a teacher that he is seldom if ever entrapped by the snares of verbalism. We all know the human tendency to become devotedly attached to certain words and to insist that the philo-

sophic heavens shall revolve around them. There is a corresponding tendency to blacklist certain phrases and to regard as anathema all that they seem to symbolize.

In formal logic Royce follows the tradition of attaching one and only one precisely defined meaning to a single word. But in the other fields of philosophy he maintains our ordinary human right to the use of synonyms. He will play the game with any implements at hand. If bat and ball are inaccessible he is never too proud to convey his soul by means of a turnip and a stick of kindling wood. He is hospitable to many sets of symbols, and able to pursue and to catch one's thought no matter how disguised in a pseudo-scientific mask or a heavy German wig.

Students often do not like this. They are often conservative and rigid about terms and when invited to play three old cat with a broomstick and a tennis ball will often turn sulky and stay out. But I am especially glad to have seen Royce teach by example that we should be flexible and at ease with many sets of terms—always provided that by profuse exemplification we keep ourselves vividly mindful of the concrete experiences which various alternative phrases can body forth. I think it is due to his wide historic study of philosophy that he is so tolerant of many usages in philosophic terminology. He knows so many pet words of this or that philosopher that he is not inclined to hitch all his affections to one pet tool.

When students ask him questions he does not discourage them by always having the answer on the tip of his tongue. He often has to think before answering,—most rare and precious trait in a teacher!—and sometimes he takes a question under advisement and hands down his decision at a later meeting. That encourages us. Questions taken so seriously as that are apt to be asked with more seriousness and pertinacity in the future.

His power to answer questions is, I think, one of his best traits as a teacher. I heard him one winter deliver a course of lectures on Child Psychology to public and private school teachers. At the end of each lecture an hour or more was taken up with the asking and answering of questions, and I heard many teachers say that they never knew questions so brilliantly and usefully

answered. For he saw all round the question and often answered what it meant as well as what it said.

V.

Once in his seminary, a student read a paper in which the ultimate reasons for his beliefs were as he said hidden *behind the veil*. One followed him step by step along his approaches to the problem of Causality, Individuality, or Time. But each time that we came close to the main issues of his belief he explained to us that *here* we approached the edges, not indeed of Spencer's Unknowable, but of a lineal descendant of that august Phantom. The student was like Spencer in knowing a great deal about the Unknowable. He told us precisely what we could find behind the veil *but for its unhappy opacity*. He bemoaned his fate like the aphasic patient who when asked, "Can you say the word horse?" answered, "O doctor, horse is one of the words that I never can get across me lips."

At last he finished. We were restless and puzzled—not knowing how to strike into the discussion. But Royce showed just the suspicion of a twinkle as he pulled himself upright by the arms of his chair and asked the reader briskly, "Now, Mr. Blank, won't you *draw aside* that veil and tell us what's behind it?"

The quality that made him say this is one of the unforgettable things about his teaching. He is always endeavoring to draw aside veils which are kept in place by the strenuous effort of him who at the very moment declares his sad inability to get through them. He regards it as characteristic of the human soul to deny the ground it stands on, to pronounce loudly its own dumbness and to explain that it cannot possibly say 'horse.' Sometimes by painstaking explanation, sometimes by whimsicality and shock, he is always endeavoring to make us more aware of what we are about when we think.

VI.

Professor Royce's chief fault as a teacher is, I think, his failure to invent a wholly new and effective way to teach philosophy, thereby superseding all the current methods, such as lectures,

seminaries, and theses. Philosophy like most college teaching is still in its pedagogic infancy. It still awaits its pedagogic prophet who will follow the *bahnbrechender* example of Dickens' immortal pedagogue Squeers. Nicholas Nickleby was shocked by the large motor element in Squeers' plan of teaching. "W-i-n-d-e-r, Winder—now go clean it."

I look to Royce or some other great teacher to abolish all the present methods of teaching philosophy in favor of some newly invented plan whereby we can say to the determinist, "D-e-t-e-r-m-i-n-i-s-m: now go *do it*." So far Professor Royce has not found time to work out the details of this method. It is the only serious fault that I can find with his teaching which I will characterize positively as I end this paper as having the maximum of scholarship with the minimum of verbal legerdemain, the maximum historic consciousness with the minimum of slavery to the past. He teaches by his example how from wounds and sore defeat to make one's battle-stay in the world of thought. He makes discussions interesting by helping the lame ducks and cooling the swelled heads. Above all he develops the student's own thought by catching him in the act of asserting what he denies, of performing what he ignores, and of possessing what he supposes himself to lack.

RICHARD C. CABOT.

BOSTON, MASS.

ROYCE'S IDEALISM AS A PHILOSOPHY OF EDUCATION.

IS some apology necessary for discussing philosophy in relation to education? He who thinks there is no vital connection between them has an inadequate idea of each, for philosophy should not be detached from practical interests, and a great practical interest like education should not go on its way empirically without the guidance of reflection. Philosophy provides the general theory of life which education should seek to realize. Their problems are the same, viewed theoretically by philosophy and handled practically by education. It is the bane of philosophy to regard it as something by itself, and, as Herbart showed, whether a philosophy works well in education is one test of its truth. We might recall that it was educational questions raised by the Sophists which started western speculation about man on its course. The world's greatest philosophers have been teachers, such as Socrates, Plato, Aristotle, St. Thomas Aquinas, Kant. He whom we honor today is a philosopher and teacher.

Education is a human interest large enough to have a philosophy. There is a philosophy of the state, of religion, of art, of truth, of morality. Education involves the use of all of these related interests in perfecting human life; then why not a philosophy of education? In fact, any philosophy worthy the name forms the background of educational practice. As Dewey says: "Education is such an important interest of life that in any case we should expect to find a philosophy of education, just as there is a philosophy of art and religion. We should expect, that is, such a treatment of the subject as would show that the nature of existence renders education an integral and indispensable function of life."¹

But the philosophers of our day have not supplied us with a general theory of education, inwrought in their philosophical

¹ Art. "Philosophy of Education" in *Cyclopedia of Education*, Vol. IV, N. Y., 1913.

thinking, as did Plato, Aristotle, and Herbart in their day. And the educators have seemed not to need it. Philosophers have viewed education as too practical a matter to engage their attention, and educators have regarded philosophy as too theoretical for them. Both philosophy and education have thereby suffered; philosophy remaining aloof from one great interest of life and education proceeding unscrutinized.

What is education? It is the endeavor society makes consciously to realize its ideals, such as health, happiness, social effectiveness, and the public weal. Narrowly, this is done through the school with the young; broadly, by all the agencies of life with young and old alike. Education needs to know its ideals, which are the ideals of the complete life in a properly ordered society, and it is a part of the business of philosophy to formulate and inter-relate those ideals.

What then is a philosophy of education? It is a program of human achievement. It is a systematic setting forth of the essential ideals of individual and social human living. It is the theory of the proper relations between the more permanent elements of the total educational situation. It is an interpretation of education in terms of the whole of experience. With those philosophers who have more than the process of social experience in mind, it may even be an interpretation of education in terms of the ultimate world-ground. So it was to Plato. So it would probably be to Royce. I say 'probably be,' because Royce has not himself given us a philosophy of education. In 1891 in two articles in the first volume of the *Educational Review* on, "Is There a Science of Education?", Royce answered in the negative; and in 1903 in his *Outlines of Psychology*, which appears in a "Teachers' Professional Library," he defined some of the problems of teaching in psychological terms. It is to be hoped that Professor Royce may similarly relate his philosophy to education. The term 'education' does not appear in the index to the two volumes of *The World and The Individual*.

There are two ways of arriving at a philosophy of education; one, from an accepted ready-made philosophy to educational theory by deduction, a rather external mode of procedure; the

other, by an analysis of the educational situation as a part of human experience to determine its essential features in relation to the goal of living. The latter method is more in keeping with our times; the psychology of education has made the same shift; but the former is perforce the only method available under the title of this paper. My task is to interpret education in terms of Royce's Idealism as Royce himself might do.

There is no occasion, I think, for summarizing Royce's system of Idealism. It is expressed particularly in *The World and the Individual*,¹ covering the problems of ontology, epistemology, and cosmology. The terms most used by Royce are Being, Knowledge, Nature, Man, and the Moral Order. The motives animating Royce's idealism seem to be the three following: (1) No radical reconstruction of the actual, as illustrated by Fichte, but the conservative interpretation of the actual in large terms of rationality by means of dialectic, as illustrated by Hegel, though Royce's interpretation of experience, will, and nature differ from Hegel's. (2) No concession to naturalistic or realistic types of philosophy, apotheosizing scientific method and conclusions, but, by supplementing the category of 'Description' with that of 'Appreciation,' the preservation of the interests of morality and religion. (This motive provokes the new realists but they have yet to launch a defensible interpretation of religion.) (3) As opposed to dualism and pluralism, the unity of the world. "The whole of experience," which Royce presents is not an aggregate of interrelated centres of finite experience but an integrated total unity, embracing time, in which finite centers have their place.

What does Royce's system of idealism, so motivated, yield in the way of a philosophy of education? The large field of theory provided by this world-view, in which education works, might be briefly stated in this wise: the subject of education, the educand, is man; he is really a citizen of an ideal world, but he doesn't realize it; his naturalistic beginnings are consistent with his ethical goal; his progress in development is a process of deepening his consciousness; he is both a self and a *socius*; his fellows

¹ Two vols., N. Y., 1900-1901.

are not only other beings like himself, but possibly animal types as well; even nature is a larger self between him and his goal; the mal-adjustments between selves which we call evil are the conditions of winning the highest good through their conquest; in this struggle with evil man has freedom through union with the whole; as a unique expression of the infinite will, he has immortality; the met-empirical nature of his knowledge, the inclusive character of his time-span, though short, his victory over evil, his essential selfhood as ethical, all betoken already the infinity of his nature; his progress is unending; his goal is the Organic Being, comprehending both the static and dynamic viewpoints, a Life of lives, a Self of selves, an Individual of individuals. Reality is a self-representative experience, sentient and rational, embodying ideas, fulfilling purposes.

One perceives the similarity of this general theory to be realized by educational practice to that of Froebel, especially in the primary place assigned the feelings and will in contrast with the descriptive rôle of ideas.

The main problems of education have a possible solution in accordance with these principles. What is the real nature of education? The realization of self-hood. What is the real aim of education? The union in acting and thinking of the finite with the infinite. What is the means of education, the curriculum? The natural and social order, the sciences describing the regularities in the activities of the Self of nature, the humanities acquainting us with the Self of man. What is the right attitude toward the body in physical education? As a part of the material world really expressive of purpose, it requires cultivation in the interest of the whole man it serves. What is moral education? It is, ultimately, bringing the will of man into harmony with his own best self, which is the absolute will for him. What is æsthetic education? It is bringing man into appreciation of the perfect, which characterizes the whole of experience as well as certain selected portions of it. What is social education? It is bringing the individual into the sense of the unity and mutuality of the different centers of experience. What is intellectual education? It is the acquaintance of man with those mechanisms

and necessities of the world which enable him to survive, to keep his engagements, and to progress. What is vocational education? It is the equipment of life with skill akin to that displayed in the activity of the world-will. What is religious education? It is the recognition that all phases of education are abstractions until they find their unity with each other in conscious relationship to the life of the All or God. The ultimate solvent is the conscious unity of all reality. There is an education of the individual and of the race; each is a process of realizing ideals and fulfilling purposes expressed in temporal succession. There is an education of the body and of the mind; each is a phase of the one process of making man. There is cultural and vocational education,—the theoretical and practical phases of one process of growth. There is an education of the school and an education of life,—two phases of the one process of living. There is an education under authority and an education under freedom, but the two are limiting terms. Each individual, being a unique embodiment of the absolute will, has priceless worth and requires complete development, which is democracy in education, limited, however, by the conception of good citizenship. Naturally we do not look to any philosophy for details of educational procedure, such as, how to correlate the work of the kindergarten and the grades, or whether we should have a junior high school.

In sum, Royce's idealism puts infinite and partly accessible meaning into educational processes. Man, as individual and society, is coöperating, now blindly, now knowingly, with the absolute purpose in bringing himself nearer the goal of his being. This process is evolutionary and without ceasing. The curriculum studied is really the activity of the selves of man and nature. The temporal, the knowing, and the moral elements of the process suggest the presence of the infinite in the finite. The ground of it all is an actualized Ideal, like the *energia* of Aristotle.

How shall we estimate Royce's idealism as a basis for a philosophy of education? There is no time for comparing its conclusions with those of naturalism, pragmatism, and realism. It is difficult to agree on a standard by which to judge its truth.

Its strong and weak points are just those of idealism itself as a philosophy. These educational interpretations to idealists are doubtless intellectually convincing as well as emotionally satisfying and morally stimulating; to others, they leave something to be desired. The educational facts themselves are not distorted by this philosophy, and their meaning is deepened and extended. An inductive study of the educational fact as part of the social situation in order to find an educational philosophy by the other method would doubtless lead some thinkers to similar conclusions. For myself, I feel the difficulty of rejecting it without implying its truth, and I do not see that this dialectic difficulty is met by voluntarily refusing to be caught by it. Royce has developed his idealistic system on the moral, religious, scientific and epistemological sides; he has not developed it particularly on the institutional, æsthetic, governmental and vocational sides. And these latter are mooted points in educational theory today. One can not be sure that on some of the questions raised above, Royce would answer as I have done.

It is also proper to ask whether education could hope to realize the idealistic philosophy. We may answer yes; for some at least, if this philosophy is itself the culmination of educational training, as Plato made it. The rank and file of teachers, in their present relative lack of training, are like the prisoners sitting chained in Plato's cave watching the shadows reflected by a fire at its opening without having ever once seen the sun of light, truth, and being. The idealistic philosophy of education may be accepted or rejected, but, if accepted, it is a mighty challenge to society to re-constitute its education more in accord with the high ends of living.

H. H. HORNE.

NEW YORK UNIVERSITY.

THE HOLT-FREUDIAN ETHICS AND THE ETHICS OF ROYCE.

A STUDY OF THE BEARING OF PSYCHOLOGICAL CONCEPTS UPON ETHICAL THEORY.

SINCE any scheme of ethics implies a psychology, any original movement in either field will affect the other. Whether or not a psychology recognizes a soul may make comparatively little difference in views of the goal of behavior, provided some changeless law of Karma secures that moral coherence of destiny which is one of the soul's functions. But theories of the will, of consent, and especially of the ranking of various impulses and desires under some 'ruling faculty,' may mark the difference between the Stoic and the Epicurean; and in this case it seems probable that the differences in psychology were largely due to prior differences in moral conviction.

At present, psychology is more independent of ethics than ethics is of psychology. But if psychology declines to deal with the will and its components, ethics will be obliged to develop this part of psychology for itself. Such home-grown psychologies will lack fertility; they are not wrought in sufficient detachment from the business of their application.¹ In Royce's ethical thought, the psychological basis was neither taken over bodily from any contemporary doctrine (though the influence of James is marked) nor was it developed as an independent science; but on the other hand it was not developed in the first place as an element in an ethical system. When William James distinguished among philosophies those that 'run thick' and those that 'run thin,' he included the philosophy of Royce in the former class, because of the omnipresence there of data of experience, largely psychological. For Royce, and indeed for any idealistic

¹ This is one of the most serious defects of pragmatism in its bearing upon the arts of thinking and education. It is inclined to argue backward from the perceivable uses of ideas to the ideas themselves, forgetting the vital difference between utility and fertility.

view of the world, there can be no metaphysics without psychology.¹ The ethical ideas of the *Philosophy of Loyalty* thus owe their shape in large measure to views regarding the self, its purposes and its objects, which first appeared in connection with metaphysical studies; though their sources lie far behind these in an uncommonly broad observation of, and interest in, human experience for its own sake.

Royce's views stand in interesting relation to the ethical results of certain recent developments in psychology. It is the purpose of the present paper to trace this relation. Already the prominence of 'behavior' in recent psychology is governing the statement of ethical and social problems, and so, to a certain extent, their solution. McDougall's *Social Psychology* may illustrate this. And now from another quarter, the strikingly original psychological work of Sigmund Freud, who has purposely remained as far as possible naïve toward current psychological traditions, is laid under contribution. In Professor E. B. Holt's book, *The Freudian Wish*,² the interest in behavior and the analysis of Freud are brought together; and both are employed, first in the re-stating of ethical questions (which is all that new concepts, strictly speaking, can accomplish), and then in indicating certain methods of solution.

This book is much more than an application of Freud's ideas. It offers a distinctly novel interpretation of the 'wish' in terms of behavior and environment. And it so far generalizes the principles of Freud's psychology, that it amounts to a gallant rescue of that work for ethical purposes both from the one-sided emphases of its friends, and from the distortions of its critics. It is refreshingly fair and clear sighted in recognizing what is significant in this region of easy and voluminous misunderstanding. The ethical application itself is essentially Holt's work. It is true, of course, that the psycho-analyst in his therapy must constantly use assumptions about where moral health as well as mental health lies: to this extent Holt's ideas may be said to

¹ Though (as his *Outlines of Psychology* may witness) it is quite possible to treat psychology while keeping metaphysical issues in the background. See page viii of the Preface of this book.

² New York, Henry Holt & Co., 1915.

be 'involved' in Freudian practice. But it is Holt, and not Freud, who has said what these ideas are, and what they mean in terms of other ethical theories. We may thus fairly regard this as a pioneer treatise, one with a weighty thesis, and further, one whose vigor, compactness, and clarity throw into welcome relief the issues about which discussion will naturally center.

I.

One looks first for the basis of the distinction between good and bad. The psycho-analyst begins with a condition judged hygienically bad, namely the mental disorder. If this disorder is caused by a repression of wishes, then repression must be judged to be extrinsically bad. Professor Holt translates this clinical judgment into an ethical judgment: repression is morally bad. This condemnation of repression is the characteristic common element in the two value-systems. But why is repression morally bad? This judgment, I take it, does not depend, through a utilitarian first premiss, upon the fact that repression may cause mental disorder. It seems to depend rather upon the judgment that the condition of repression is one already out of normal relation to the facts of the world. The implied first premiss is that there is a natural relation to these facts, and that this natural relation is "somehow right" (p. 151).

This natural relation is one of a personal knowledge of facts, and an adjustment to them through this knowledge rather than through authority. The facts will 'drive us on to morals' if we expose our minds to them: this is the ethics of the dust, the ethics from below upward. On the other hand, if we take our relation to the facts through social authorities, with those prohibitions and tabus which prevent acquaintance and personal knowledge, we deprive ourselves of the natural reasons for moral behavior, and our good conduct, such as it is, is a result of repression, not of wisdom. This is the ethics 'from above' (p. 132), sanctioned by the prestige of the censor, and hence *not* sanctioned by the inner working of one's own experience and discrimination. "Thus (through their official bans) it comes to pass that church and state often play in the adult's experience

the rôle of shortsighted and injudicious parents. . . . It is truth and the ever-progressive discrimination of truth which alone conduce to moral conduct" (p. 130).

But if we define our ethically right attitude simply as one which is derived from a knowledge of facts and their consequences, our theory does not differ essentially from that, for example, of Herbert Spencer (especially in his treatise on *Education*). Spencer has the same high scorn of those heteronomous systems which display, perhaps not so much *distrust* of the experiential sanctions for conduct, as an *incompetence* in recognizing them, an imperfect development of causal reasoning. But Spencer would have us hold to authority in some form or other until such time as the causal consciousness is so vivid in all of us that we can surely perceive the relations between our ideals and our experiences. How far Holt would accept this reservation; how far, on the contrary, he would advise the bolder attempt which Arthur Balfour pictures,¹ is not wholly clear. He has a place for authorities that tell the truth, and are known to tell the truth (p. 114). It is rather the lying authority, which while exhorting us to suppress our wishes is at the same time busied in suppressing the facts (p. 133), that is to be condemned. The impression received from my reading is that Holt judges most human authorities to be of the latter kind, the more particularly when they allege a divine sanction (p. 130). In this respect, Holt's views are similar to those of many other modern writers.

The distinctive character of his doctrine must be found in another aspect of what I have called the 'natural relation to facts.' For there are really two sets of facts which the moral life has to consider, the facts of the world in which our wishes are to be worked out, and the facts of those wishes themselves, defined as specific responses (or dispositions to respond) of our own organisms (p. 56). Our wishes also are objectively given. And it is the business of right conduct not alone to know the facts of the environment, but *so* to know them that we can satisfy our wishes. To refrain from eating mushrooms because some mushrooms are poisonous is not ideal conduct; our task is

¹ *Foundations of Belief*, pp. 204-208.

to know which are edible, and (if we wish) to eat them. "Right is that conduct, attained through discrimination of the facts, which fulfils all of a man's wishes at once, suppressing none." (p. 131).

There are thus two conditions which conduct must satisfy in order to be moral. It must be autonomous, and it must fulfil my wishes. It must be free in the sense of containing within my own knowledge all the reasons for my conduct; and it must be free in the further sense of liberating that in me which craves an outlet. The condition of the repressed individual is unfree; his will is divided against itself; while he does one thing, there is a secretly rebellious fraction of himself which longs for something else, the forbidden fruit. He cherishes the delusion that some actions are 'delightful, yet sinful'; and so far, while rejecting them, he remains privately attached to them, hence in bondage, rebellious, and unmoral.

The way of moral improvement is in general such as to satisfy both these conditions at once; for it is by a process of 'discrimination' that one finds it possible to satisfy the repressed wish. For example, I have a wish for social amusement and relaxation. The world of facts provides me with companions and places of amusement. But the censor has declared that the available amusements, theaters perhaps, are bad; and I am in the position of one who faces a field of poisonous mushrooms: my wishes must be repressed. What is needed is a discrimination; if I trust my own eyes, there is 'the easily perceivable fact that the theater is partly good and partly bad'; and with this bit of wisdom comes the release of my rightful desires.

This use of the word bad as applied to theaters, etc., invites some attention; for there is no doubt that the bad theater has the power of satisfying just those wishes that were repressed. And one who freely indulges in bad theaters is not guilty of that fear of experience which marks the dominance of the censor. If we condemn this indulgence it would seem at first sight to be on some as yet unacknowledged ground. Holt himself makes an apparently extra-scientific appeal to 'conscience' (p. 120), or to "a sound prejudice against unbridled frivolity, and a normal

shrinking from . . . moral contamination" (p. 119). But the difficulty is only apparent. When we call the theater bad it is only because in satisfying wish A it in some way thwarts and represses wish B. And our moral problem is, not simply to find objects which satisfy our wishes severally; but to find among a class of objects X which satisfy a given wish A, that variety X' which thwarts no other of the entire magazine of wishes. The postulate which this type of ethical theory seems bound to make is that such objects as X' exist. The edible mushrooms and the good theaters exist, and I can reach them.

II.

If I point out the generous optimism of this postulate, it is not for the sake of disputing its general validity, nor that of the corresponding dictum, that if repressions occur in this world of ours, it is through lack of knowledge (p. 128). It is for the sake of enquiring whether all repressions are alike evil; whether some may not be both inevitable and desirable.

Is Professor Holt, perhaps, treading dangerously near that view from which Thorndike has recently so solemnly warned us,—the view that original human nature, as a bundle of wishes, is always right? This view, says Thorndike, "by being attractive to sentimentalists, absolutist philosophers, and believers in a distorted and fallacious form of the doctrine of evolution, has been of great influence on educational theories."¹ He then points out the presence in us of wishes to lie, to steal, to fight, to torture, to run away, some of which we are bound not merely to repress but to throttle, because they are appropriate only to an archaic environment. We have to 'unlearn a large portion of our natural birthright.' One may reasonably challenge these categories, denying that there is any such wish in human nature as a wish to lie, or to steal, etc. One may insist that whatever impulses we have must be given non-invidious names; the alleged wish to lie may in fact be a wish to dramatize or invent, etc. But one has still to consider the broad necessity of discipline, perhaps even of excision, in the making of the moral

¹ *Original Nature of Man*, p. 270.

person, if only because of the 'side-stepping of civilization,' or the reversal of selective methods which Huxley has pointed out.

If we are to require in our morality satisfaction of the entire man—and this seems to me a just requirement—we must invoke, I believe, another principle,—that of *vicarious satisfaction* among our wishes. This implies (1) that our various 'wishes' are not distinct entities (as the A and B of our illustration), but are related as species of a few more general wishes, perhaps ultimately of one most general wish; and (2) that the satisfaction of the more general wish is a satisfaction of the more particular wish. Instances of the operation of this principle are not far to seek. The love of fighting or of opposition is one which may be satisfied in many ways from the combat by fists to the rivalry of commercial undertakings or of political parties; William James has familiarized us with the notion of a 'moral equivalent' of the cruder pugnacity. Indeed, society may be said to be largely engaged in the work of discovering moral equivalents for our primitive wishes; and what we call a custom or an institution seems to be fairly describable as a social finding of this sort.

It is because *our wishes exist as generals*, and not as specific particulars alone, that the process called by Freud "sublimation" is possible. This process, which seems to me to be the most important conception for ethical purposes that Freud has outlined (though he has rather assumed it than developed its theory), has its most obvious illustration perhaps in the æsthetic equivalent, or social equivalent, of sexual wishes; the general wish under which these specific varieties occur may be variously described as the wish to create, or the wish for union, etc. In this form it has variously appealed to social observers, as to Miss Jane Addams, to Walter Lippman and others. But its prevalence and fundamental character have hardly been recognized. It needs to be related to the process of the transformation of instincts which McDougall has touched upon and which all forms of education make use of. And it needs to be understood in terms of a tendency of the life of our wishes to reach successively more general interpretations, and to become subsumed ultimately under one comprehensive wish,—the 'will.' With

the principle of vicarious satisfaction thus defined, it is conceivable that comparatively few of the enumerable wishes of a man should be satisfied, and yet the *man* be satisfied. The inevitable lopping-off that comes with every large decision, the successive specializations into which we are driven, the relinquishments necessary if only through lack of time, the hungers left by poverty, by social pressure, by the hundred comparative failures to one thorough success in competitive pursuits, and finally that universal human longing due to the actual absence from the world of those objects upon which many wishes might run out (the music not yet written, the justice not yet achieved, not to speak of the lacking edible crows or wholly good wars, even if there be edible mushrooms and wholly good theaters),—all of this need no more make man unhappy than make him immoral, if our psychology can show us that the ‘soul,’ or the ‘will,’ or the total wish of man, is so far a genuine entity that a checked wish need not persist as a repressed and rebellious moment of subconscious demand, but find its way upward into a purpose that *is* satisfied.

If this could be shown, and I believe that it is precisely in this direction that the development of the Freudian school is tending,¹ we should be inclined to transfer Holt’s moral law of discriminative self-expression to the one wish or purpose, and let the particular wishes take the consequences. The difference between the two methods might be symbolized in some such fashion as this:

Assume as before that we have wish A which can be satisfied by X, but at the cost of repressing wish B; and we have wish B which can be satisfied by Y (or by not-X), but at the cost of repressing A. According to the method of discrimination we are to find an object X’ which will satisfy A without repressing B, and presumably also an object Y’ which will satisfy B without repressing A. According to the method of vicarious satisfaction we have to recognize the more general wish, M, of which A and B are special forms, and then to find the object, Z, which will satisfy M.

Under this latter method, A and B would not be satisfied in

¹ See below.

their own persons. Neither would they be repressed in the sense of being pressed back into a continued life of protest. It might be fair to say that, as at first defined, they would be *suppressed*, as a necessary first stage of being sublimated.¹ All growth must involve some such suppression of imperfectly defined wishes, until we discover what, as a major purpose of our existence, we really want. Repression must be judged bad; not however because of the local rights of the minor wish, but rather because it implies a laxity of the main current of the will, a Lot's-wife sort of irresolution, such as a brisker seizure in thought of one's chosen object might dissipate.

I am not posing as a protagonist of self-mutilation or asceticism, though I believe with William James that every man needs his own quota. I thoroughly believe in the principle of the inte-

¹ I have been using throughout the word repression for Freud's *Verdrängung*. I have had this distinction in mind in doing so. For Freud, *Verdrängung* is not the general condition of a wish which is denied outlet, but rather the condition of the wish which while outwardly checked is inwardly harbored. He recognizes the normality of what I have called suppression as a part of growth. Thus, in his Clark lectures, he speaks as follows: "The general consequence (of psychoanalytic treatment) is, that the wish is consumed during the work by the correct mental activity of those better tendencies which are opposed to it. The repression is supplanted by a condemnation, carried through with the best means at one's disposal. . . . (At the origin of the trouble) the individual for his part only repressed the useless impulse, because at that time he was himself incompletely organized and weak; in his present maturity and strength he can perhaps conquer without injury to himself that which is inimical to him." So far, Freud pictures the rather drastic procedure in which wish B actually puts wish A out of existence entirely, suppressing it, instead of repressing it; and without substitution. But, he continues, "the extirpation of the infantile wishes is not at all the ideal aim of development. The neurotic has lost by his repressions many sources of mental energy whose contingents would have been very valuable for his character-building and life activities. We know a far more purposive process of development, the so-called sublimation, by which the energy of infantile wish-excitations is not secluded, but remains capable of application, while for the particular excitations, instead of becoming useless, a higher, eventually no longer sexual goal, is set up." It is this departure from the 'sexual goal' which evidences that Freud does not contemplate the satisfaction of wish A in its nominal character. To be sublimated, it must, in this character, be suppressed. Freud goes on, however, to indicate that he does not regard sublimation as an ideal solution of the problem of wishes. It is far more desirable, he suggests in a figure, that from the point of view of mental energy A and B should be satisfied in their particular characters. So far, he subscribes to Professor Holt's method, but he does not identify it with morality. (*American Journal of Psychology*, Vol. XXI, 1910, p. 217).

gration of wishes, as Holt has stated it, as a necessary element in our moral ideal. But when it becomes the leading element, so that what I have called local rights are the first things to be considered, it seems both to misrepresent and to complicate the moral situation. The ideal of rounded development and activity is unquestionably the law of that Nature worshipped both by Greekdom and by our contemporary physicalism. But the necessity for sacrificial choice is not provided for; and it cannot be eliminated. Nor can we evade the fact that it is precisely such choice that for most men must always constitute the conscious ethical crux. It is of little value to say to the soldier called upon by his country "So discriminate as both to satisfy your patriotic wish and your wishes for family life, social amenity and physical comfort." The synthesis is indeed better than the opposition, and wise and happy is he who can find it. But until what we call adaptation is complete, the moral law must deal with disjunctive judgments.

III.

There is one phase of Holt's psychology to which this view of the ethical problem seems more akin than the Freudian view. I refer to his theory of the subconscious. It is characteristic of Holt's view of mind to seek what is usually called 'inner' in a man's dealings with his environment. He prefers not to trust the 'inside information' of introspection. Almost we might say that for Holt, the man is his purpose;¹ and his purpose is to be discerned in the remote and inclusive objects of his action, rather than in any 'thoughts' which he might be able to serve up, on demand, as an account of himself. There is something like a reciprocal relation between the supposed 'inwardness' of a thought or motive and the remoteness of the object with which it is concerned: the more inward the thought, the more outward the object. The thoughts that we call subconscious, or 'secret' are those which are not on the surface of our minds because they are relating us to our distant rather than to our immediate concerns: while I appear to others and to myself to be purchasing

¹ See Holt, p. 28.

a railway ticket, I may be subconsciously building the house to which this momentary act is accidentally related through a thousand links. To recognize in the subconscious thoughts and wishes those which reach (or try to reach) farthest outward, seems to me not only illuminating but ventilating to this conception so commonly shrouded in mystery.

It is subconsciousness in this sense, a subconscious wisdom, in fact, which relates a man to his widest horizon and constitutes his ethical and religious nature. "In moral conduct the stimulus has receded the farthest, and such conduct is behavior toward the more universal entities, toward truth, honor, virtue, and the like" (p. 146).

This view of the subconscious, however, and of the ethical principle, seems to me hardly consistent, not to say identical, either with Freud's view and practice, or with the previously noted principles of Holt. If a repressed wish or a traumatic memory is subconscious, in Freud's usage, it is not such as refers to objective facts lying *beyond* the usual conscious border; nor is it such as can be directly discerned in any actual behavior. Let us call to mind Freud's methods. He does not, indeed, rely upon direct introspection for revealing the subconscious wishes. He states his problem thus: "To find out something from the patient that the doctor did not know and the patient himself did not know." He learns to distrust hypnosis partly because not all patients can be hypnotized, and partly because its results are unreliable. He comes to the conclusion that all memories accessible to hypnotic states are accessible also to normal states; if certain memories fail to emerge it is because of a resistance, due to the hypothetical process of *Verdrängung* or repression. Hence his methods are aimed at removing the resistance and aiding the patient to recognize and confess his own wishes. To accomplish this he does, in fact, examine such behavior, and also such experiences, as may offer a clue to the lost motive: he analyzes dreams, slips of the tongue, types of imagination and association, the various subtle ways in which we all 'betray ourselves.' "In this way," he says, "I succeeded, without hypnosis, in learning from the patient all that was

necessary for a construction of the connection," etc. What I wish to point out is that Freud depends on learning the pathogenic state of wish or memory "from the patient"; his most satisfactory evidence of the rightness of his 'psycho-analysis' is that the patient recognizes its rightness, by introspection. Often-times this recognition amounts to a new item of self-consciousness on the patient's part, the naming of an unavowed or half-concealed motive. Sometimes it is like recovering the thread of a forgotten experience. Often it bears the character of a confession, and as Freud has somewhere remarked, has some of the values and dangers of the confessional. But always it is an appeal to more searching introspection. No doubt the states of consciousness thus revealed are represented in nervous structure by subtle interplay of motor settings;¹ but the point is, that Freud neither seeks nor finds them there. Freud uses behavior as an aid to introspection. And what he finds is a radically different region of subconsciousness from that which Holt describes in the passages referred to.

The most obvious difference is that the subconscious wish recovered by psycho-analysis is supposed to be driven into subconsciousness by the censor, whereas the subconscious described by Holt is as likely as not to be the censor itself or an element thereof. The former aspect of subconsciousness is artificial, a consequence of repression; the latter is natural, entirely free, constantly coöperating with conscious thought instead of antagonizing or being antagonized by it, actively relating our conscious deeds to their widest horizons.² This latter aspect of subconsciousness may fairly be identified in a special way with the man himself:—As a man thinketh in his

¹ Holt, pp. 93, 94.

² I have elsewhere described in some detail the difference in function and origin of these aspects of subconsciousness, referring to them as the coöperative and the critical subconsciousness, respectively. *The Meaning of God in Human Experience*, Appendix I, pp. 527-538. The point of this distinction is well expressed in a quatrain of John B. Tabb:

'Tis not what I am fain to hide
That doth in deepest darkness dwell,
But what my tongue hath often tried,
Alas, in vain, to tell.

heart, so is he. Or in Holt's terms,—As a man's ultimate horizon of response is, so is he. But one could hardly without cynicism sweepingly identify the subconsciousness of repression with the man or with any essential part of him. Yet this is precisely what the Freudian analysis inclines to do; and it is here that Holt's psychology might act as a salutary corrective, if it were consistently applied. Let me develop this suggestion briefly.

IV.

The first appeal of the Freudian clinic, and of the Holtian ethic, is to a greater candor, and a new self-scrutiny. It demands of us confidence in a severer but friendlier truth, as a condition of moral growth. If it confronts us with something like a universal threat to the effect that "There is nothing hidden that shall not be made known"—since in spite of ourselves our expressions are a perpetual self-betrayal (Holt, p. 36ff)—it does much to make endurable the admission of the supposedly inadmissible; for it shows our individual fault as a common human failing, holding out the greeting of a general companionship in confession. The goal of such added self-knowledge and self-avowal can be nothing but truth and health, and it must be prized accordingly. Psycho-analysis, with vastly different weapons than those of Carlyle, may be still more pervasively effective than he in making us aware of the amount of sham in our lives. Dr. James J. Putnam speaks wholly in the spirit of the new self-knowledge when he refers¹ to the "hidden motives and self-deceptions which to a greater or less degree falsify the lives of every man and every group of men," or suggests "the discovery that some apparently harmless act, classifiable in ordinary parlance as a wholly justifiable form of tender emotion, is in reality a sign that (his) thoughts are tending in objectionable directions." In so far as subtle hypocrisies and double-motives are real ingredients of character, nothing can be more welcome than a usable method for detecting them.

It does not follow, however, that every thought or motive which is under suppression is such a real ingredient of character,

¹ *Journal of Abnormal Psychology*, Vol. IX, April-May, 1914, pp. 37, 44.

as a great deal of the Freudian literature suggests. As a token of the error we may point out a characteristic touch in the Freudian interpretation of wit, or dream, or art, or even of moral effort, which it would be too strong to describe as cynical or blighting, and yet which distinctly verges in this direction, and from which Holt's own treatment is not wholly free (as p. 144), though he has done much to save a good clinical hypothesis from developing into a prevalent clinical suspicion. It should be clear that solely on Freudian principles¹ there is a radical difference between the repression which has preceded the self-analysis and avowal, and the moral effort of suppression or sublimation which must *follow* it if the discovered trait is to be corrected. Any moral effort whatever, no matter how free from self-deception, necessarily implies the continued presence in us of impulses which we must resist; it implies that there must be a censor with actual work to do. To this extent there will be double-mindedness; but there is all the difference in the world between a double-mindedness which is *growing toward unity*, and a double-mindedness which is being cherished and smuggled along by some one of those many devices of compromise which Holt so justly condemns. I believe that most of the actual work of the censor in our consciousness is of the former sort (or of a mixed sort, with a good deal of the former ingredient in it); and that a call to unrestricted self-revelation would tend to undo in many minds the first stages of moral achievement. I believe this the more because in many cases, and perhaps in most common cases, the most effective method of moral improvement is *not* the Freudian method of scientific self-analysis. Something is to be said for a very different method, which without accepting Bergson's opposition between analysis and intuition, might well be described in terms of their contrast. Just as a certain element in the cure of diseased viscera is, at the proper stage of things, to forget that you have any viscera; so a certain element, and naturally a much larger element, in the cure of any moral disease is to forget that your feelings have an anatomy, and attend to wholeness of will

¹ Though I confess that Janet's account of dealing with a motive we wish to overcome seems to me more in accord with ordinary experience. *Journal of Abnormal Psychology*, vol. IX, No. 1, pp. 28-9.

and action. It is because this method is so ancient, so well understood, and so spontaneously used, that many an honest person confronted with an equally honest Freudian analysis of his subconscious self, would be likely to draw from it quite perverse conclusions about the state of his soul. I do not undertake to state where the border of efficiency between the two methods is to be drawn. It is our destiny to become completely self-knowing; and I do not think that any one can have too much self-knowledge or self-analysis, so long as it is true self-knowledge, proportionate. But so long as the method of health by intuition of health (if I may so describe it) has any important rôle to play, it is a serious defect of any general scheme of moral hygiene not to take account of it. And the defect becomes doubly serious when, as appears to me the tendency of the Holt-Freudian scheme, the natural and unconscious use of this intuitive method—externally so similar to repression and censorship in the hypocritical sense—is confused with them. It is not true, I repeat, that every thought and motive which is under ban and can be revealed by psycho-analysis is a real ingredient of character. And with due respect to Holt's definitions, this method of interpretation is, in its actual working, *too subjective*.

But this error, I believe, is rather Freud's than Holt's; for in Holt's own principles the antidote is clearly enough stated. "The inscrutable 'thought behind' the actions of a man, which is the invisible secret of those actions, is another myth" (p. 85). Take this general principle of behaviorism together with the principle that the characteristic purposes of a man are those which reach the widest horizon; these purposes are himself, provided that they are actively engaged in integrating the rest of his purposes into their own system. Take it with the comment that the hidden thought is a myth not because it is non-existent; but because only those thoughts have significance for character which achieve expression. We shall then have, I believe, a much sounder principle of judgment. We shall be judging a man by that which he is ultimately moving toward, rather than by what, as vestige of infantile wish-definitions, still adheres to him from a past which of his own growth he is shuffling off.

V.

It remains true that the objects toward which a man is ultimately moving cannot be discovered by external observation. For in the case of just these objects, which most define the man, the 'recession of the stimulus' has proceeded to infinity; and further, the 'stimulus'—these objects themselves—has become intangible in nature. Hence we cannot identify a man's major purposes in the manner suggested by Holt, that of exhibiting the objects (though we might attempt a metaphysical definition of them); nor can we discover them by Freud's method of uncovering repressed wishes. The best instrument which has so far been devised for discovering what these major wishes are is, I believe, an ancient one,—the Platonic logic of the affections. It is the peculiar merit of the Socratic dialectic, as shaped by Plato, that it reveals precisely that part of the subconscious self (if we wish to describe in these terms that unanalyzed part of the self which Socrates, as midwife, undertook to deliver) which as censor of the individual is also the common sense, and so the common censor, of mankind.¹

The working part of the dialectic of Plato might be roughly described as a comparison of an experimental definition of a term (in connotation) with accepted cases of its denotation. If courage be defined as daring; and it is admitted that one who

¹ One of the most vigorous and inspiring aspects of Holt's book is its recognition of points of contact with Platonic psychology and ethics. The main point of this agreement is in the doctrine that only the good man is free, and only the wise can be good. Holt's method of reaching this goal of freedom, by discrimination and synthesis, differs from the dialectic of Plato, as I shall try to make clear, precisely in that part of the subconscious which it is destined to set free. It is needless to point out that the freedom which Plato had in mind was quite consistent with a somewhat ascetic, or repressive, attitude toward the body. The *Symposium* presents us with perhaps the first instance of a conscious philosophy of sublimation, by finding in universal terms an *equivalent* for the specific forms of wish. If Plato appears in any modern dress, it must be as a democratized Plato, so far as the rank of our various affections is concerned. This modern contribution to Plato's thought, the release of the human spirit from distrust of its 'lower nature,' is perfectly carried out in Holt's theory. But the question remaining unanswered is, How shall we distinguish among our wishes those which identify ourselves, and so have especial right to be regarded as major or ruling wishes? What is it which, on the whole, we want to do? In answering this question Plato's method, or a modified form of it, is still, I hold, our best recourse.

dares in an ignorant and foolhardy manner is not to be called courageous, we must change the definition of courage so as to include the element of knowledge. The judgment that the foolhardy person is not to be called courageous can be taken as more certain than the definition, only because one's power of applying a concept in recognizing or excluding is more certain than one's power to express it in terms of predicates. It must be assumed that one knows what courage is, for the purposes of these recognitions, in order that the dialectical apparatus shall have a fixed ground to operate from. Yes, one must know *what* courage is, that is, one must actually know the connotation, in order to effect these judgments of denotation. But this knowledge of the essence as an inaccessible knowledge may be called relatively subconscious; one can reach it for purposes of expression only by a succession of these dialectical efforts or experiments.

Now this process, which is applied by Plato chiefly to the task of learning what we think, is also quite spontaneously applied by all of us to the task of learning *what we want*. For all assertions of the form 'I wish X' may be regarded as essays at definition, namely the definition of a wish in terms of its objects. And all such definitions, which children and others are inclined to put forth with a high sense of dogmatic certainty, are seen in the course of experience to be, in truth, highly hypothetical. They are, in effect, hypothetical interpretations of a wish, which in its completeness remains unknown in quite the same way as the nature of justice or courage is unknown. And the general effect of experience is to lead to revisions of the assumed definition. Not all learning by experience, however, is dialectical in character; indeed the most conspicuous examples are not so, and partly perhaps for this reason this analogy, so far as I know, has not been pointed out in current discussions of the learning process.

For in the common processes of motor learning, in which pleasures and pains, or the 'original satisfiers and annoyers' of which Professor Thorndike speaks, furnish the definitive 'yeses' and 'noes' for our active experiments, the revisions that take place affect not so much our understanding of our wishes as our under-

standing of our objects. If yielding to curiosity brings the finger into the flame, or yielding to the pecking impulse leads a chicken to take up an undesirable lady-bug, definite sensible 'annoyers' are encountered whose relation to the original impulse is simply an empirical fact. The result of such an experience is likely to be simply caution in getting the rose without the thorn, or a discrimination as of the edible from the non-edible insects, without any reflection upon the nature of the impulse itself. It is not, for instance, that the chicken's hunger was misdirected; but that what it took to be the same object as one which had previously satisfied it was not in fact the same; the genus was too widely drawn. Nature might have made all flame as innocent as incense, and all lady-bugs as sweet as corn, so far as our insight yet goes; the attributes of these things have to be learned as one learns the alphabet, without inner illumination.

There is a shade more reflection involved in another type of dissatisfaction. There are some experiments which at the moment seem to turn out well, but which bring painful results at greater or lesser distance from the satisfaction. The pains which follow over-indulgence may, if one has sufficient mentality to 'integrate' them with his experience, lead to the judgment, "This, after all, is not what I want." But here again nature might have made us so that some high orgy could be pursued without resulting depression; or, if not, the question might still be raised, and is raised, whether the orgy, or some orgy like it, might not be worth the cost. So long as the satisfaction itself shines out with unclouded light, and the connected pains are externally related to it, the entire effort of revision is directed to the circumstances and not to the wish.

But there is a third type of experience, and here it is that we encounter the dialectic change, in which an achievement is followed by an ill-defined sense that one is not, after all, satisfied with *that apparent satisfaction*. The memory of that terminal joy itself is mixed with unpleasantness. There is what I should call a *mental negative after-image* of the experience. It is hardly necessary to illustrate; but a common example may be taken from almost any experience of impulsive pugnacity. I have a diso-

bedient child; and upon an accumulation of petty failures to obey I act upon the injunction of a contemporary sage, 'Never punish a child except in anger.' With the aid of this emphasis I secure compliance, and am satisfied. But quite possibly after some time my sense of triumph may fade. I defined my wish in terms of compliance, and I gained it; but what I gained was not what I wanted,—the error was in my understanding of my own wish. I may be puzzled to know in what respect I have failed; for what is now required is a new effort at analysis, a new hypothesis, an essentially inductive achievement in naming what was wrong and so revising my definition. I may emerge with the supposition that what will satisfy me is a free compliance, or one based on confidence rather than on necessity. But whatever the outcome, the process is a dialectic process. It might be called the *dialectic of the will*.

Like the Platonic dialectic of concepts, it assumes that the *judgment of denotation is more certain than the judgment of analysis of connotation*. The judgment of denotation here takes the form: This experience is, or is not, a case of what I wish. And as in the Platonic dialectic, the certainty, in turn, of this judgment of denotation depends upon the presence of a 'subconscious' knowledge of what, in connotation, I want.

The distinction between this process and the first-named process of learning from experience of pleasure and pain may appear in this, that this 'mental after-image' is more potent than pleasures or pains to determine the history of a wish. Thus, a fight may be attended with much pain and subsequent discomfort; but if the after-image is gratifying, the pain seems to have a wholly negligible effect in deterring the enthusiastic fighter. The agony of childbirth does not deter the normal mother from again entering the same cycle of experience. And on the other hand a slight shade of dissatisfaction in the after-image may nullify the effect of the keenest pleasure in inducing a repetition of the successful behavior. If pain is, in Sherrington's sense, 'prepotent' as a stimulus; the mental after-image is 'prepotent' (or has become so in the human species) *in fixing the definitions of wishes*, and so in determining habits.

Thus we are 'driven on' by experience, if not to morality, at least to a more adequate knowledge of what we want, by a dialectic process whose motive power comes from the free, coöperative subconsciousness, not from the repressed subconsciousness.

VI.

By aid of this conception of an experiential dialectic of the will, we may now be able so far to bridge the initial difference in terminology between the ethics of Royce and the Holt-Freudian ethics as to show what their relations are. Let me attempt to resume these relations in a series of propositions.

(a) *For Royce the moral problem of the individual might be stated as a problem of finding what on the whole one wants to do,—and then doing it; the process of this discovery is analogous rather to the dialectic of the will than to the method of discrimination.*

For Royce, as for Holt, the 'soul' or self is to be defined in terms of purpose. It makes little difference in this connection whether we call the psychological materials desires, instincts, or wishes.¹ In either case, it is not by the possession of any soul-substance that I am defined a self; but it is "by this meaning of my life-plan, by this possession of an ideal."² And Royce's conception of the moral problem is so far opposed to any kind of heteronomy that the whole duty of any man is to be found in the fulfilling of his unique purpose.

¹ Compare Royce's definition of a desire (*Outlines of Psychology*, p. 366) with Holt's definition of wish (p. 56). For Royce, "A desire means a tendency to action, experienced as such, and at the same time felt as a relatively satisfactory tendency." Of the wish, Holt says that it is "a course of action which the living body executes or is prepared to execute with regard to some object or some fact of its environment." Both definitions raise the question what kind of existence a desire or wish may have when the course of action referred to is not carried out,—which is of course their characteristic mode of existence. If we may assume that "tendency to action" in the one case, and "prepared to execute" in the other, mean the same condition of incipient activity and physiological setting, the differences between the concepts seem to be simply (1) that Royce expressly recognizes the element of consciousness, and (2) that Holt expressly recognizes the environing objects with which the action, if it became actual, would deal. The definitions are certainly not inconsistent.

² *The World and the Individual*, Vol. II, p. 276. For Holt, however, the soul is a unity only when integration is accomplished: he frequently uses the plural of purpose or wish as equivalent to soul. See pp. 49, 200 f., cf. pp. 95, 118.

As to the process of accomplishing this, the original difficulty is that one does not know what one's purpose is, at least in terms of the objects with which he must deal. It is characteristic of the purpose that it is forever in search of its own completed meaning. Its life is a movement from self-ignorance to self-knowledge. This knowledge comes in dealing with the world of objects, for they *are* the completions of the meaning of the purposes, their 'external meanings,' more organically parts of the purposes themselves than are the objects of Holt's wishes parts of the wish.¹ It is through contact with objects that I learn to recognize in them (or as Plato would say, to recollect) my own meaning.

Royce does not describe the process through which a purpose finds its meaning as a dialectic process; and there are sufficient reasons for resorting to new terms. Since Hegel's time this word has borne a connotation which was foreign to Plato, that of determining in advance the course which experience must follow; and in the rejection of this prescriptive tyranny, the descriptive value of the concept, together with its experiential character, have been largely overlooked. The notion of an *a priori* deduction of the course of experience is as foreign to Royce as to Plato; the quest is experimental, and it is essentially the same quest. So far as it has a typical history, Royce describes it about as follows: Our life at any moment shows two regions or strata: there is a region in which, having found out what we want and have to do, we have adopted habits toward various objects,—these are our known and recurrent wishes; and there is a region of groping, of working by trial and error, in pursuit of the residual meaning yet ungrasped, "interpolating new terms in a series of stages that lie between the original condition of the organism and a certain ideal goal, which the individual organism never reaches."²

The findings of this experimental quest, Royce first refers to as

¹ The fact that, according to the type of idealism which Royce holds, the world of objects only exists for me as a world of the external meanings of my ideas does not, of course, imply that the objects with which any given wish has to reckon exist only as external meanings of that particular wish.

² *The World and the Individual*, Vol. II, p. 317.

'tasks' and 'deeds' and 'offices' such as mark off my contrast with my fellows. Later he is inclined to refer to them as 'causes' such as at once set me off and unite me in common undertakings with others. To discover one's cause and be loyal to it; this is the essentially ethical problem. And the recognition of the cause which identifies one as a person is so far a critical event in the history of the will that it puts a check upon the freedom of experimentation. "The choice of a special personal cause is a sort of ethical marriage to this cause."¹ Yet all such choices are made in a degree of ignorance; they are fallible, and when it becomes "unquestionably evident that the continuance of this marriage involves positive unfaithfulness to the cause of universal loyalty," it must be dissolved, and the definition revised.

The justice of bringing this process of choosing a cause by successive revisions into comparison with the dialectic above described lies in the assumption that the finding of a cause is a judgment of recognition, and so depends upon some kind of prior possession of the connotation of the cause.

It must be admitted that Royce does not expressly argue that any such prior knowledge is implied in the choosing process. Still less does he apply to it the term 'subconscious.' This term Royce for the most part avoids.² But such seems to me to be the implication of his teaching. If I know at all that I exist, it must be, according to Royce, as entertaining a distinctive purpose; and if ever I am able to judge that "This is what I seek," the 'what' of my search must already be known to me

¹ *The Philosophy of Loyalty*, p. 191.

² In *Outlines of Psychology*, the contrast between unanalyzed and analyzed mental states covers part of the ground of the contrast between the 'allied' subconsciousness and consciousness (pp. 105-116); and my own belief is that here Royce's terminology is less likely to be misleading.

But in speaking of "that mysterious and personal aspect of conscience upon which common sense insists," he says that "Such a loyal choice as I have described . . . calls out all of one's personal and more or less unconsciously present instincts, interests, affections, one's socially formed habits, and whatever else is woven into the unity of each individual self . . . it involves all the mystery of finding out that some cause awakens us, fascinates us, reverberates through our whole being . . . (and thus) involves more than mere conscious choice. It involves that response of our entire nature conscious and unconscious, which makes loyalty so precious." *Philosophy of Loyalty*, pp. 194f.

somewhat as the meaning of justice was known at the outset to the Socratic enquirer.¹

(b) *In so far as the will in seeking its cause or causes must choose from empirically given materials, Royce's ethics is an ethics 'from below.'*

As a psychological doctrine, Royce accepts the entire dependence of the will upon previous experience for its contents, quite as James stated the case. "We can never consciously and directly will any really novel course of action. We can directly will an act only when we have before done that act, and have so experienced the nature of it."² This principle holds good not alone for choices of physical alternatives, but for moral choices as well: we cannot choose to be self-controlled unless we have first experienced what self-control means. It is through imitation that we first find ourselves taking attitudes which have moral value: and having thus become, as it were, involuntarily good, we may then deliberately pursue goodness. But the first data for all voluntary behavior are furnished by instinctive actions. These instincts, as we inherit them, are "planlessly numerous" (p. 373); their existence imposes upon us a problem of organization. Certainly it is experience which here drives us on to morals.

(c) *But neither for Holt nor for Royce can the principle of choice or selection be given with the materials for choice as a datum of experience. This principle of choice has its psychological expression as an 'instinct' of greater generality. To this extent, ethics can be neither 'from below' nor 'from above,' but from within.*

All evaluations make use of a standard of evaluation; and however the things to be chosen or estimated may be found in experience, and the standard itself come to consciousness only with the material of the problem, it is not the data which have furnished the standard.

Royce follows James in treating the psychology of choice as a matter of selective attention, an "attentive furthering of our interest in one act or desire as against another."³ Such pref-

¹ See *Philosophy of Loyalty*, pp. 169f. Also *The World and the Individual*, Vol. II, pp. 434, 445.

² *Outlines of Psychology*, p. 369.

³ *Ibid.*, p. 369; *The World and the Individual*, Vol. II, p. 354.

erential attention, which is will in the stricter sense, may be traced to the interaction between momentarily presented interests (wishes, instinctive-impulses) and a more permanent policy, a "system of ruling motives" itself the result of previous choosing and integrating. But the problem of accounting for the earlier choices which established this system is still to be met. If we refer preference to imitation, and say that the desire to imitate is itself an instinct, or a complex of instincts,¹ we must admit that neither the tendency to imitate, nor the tendency to oppose, if such general tendencies exist, prescribe what things are chosen for imitation and what for opposition. For psychology as well as for metaphysics the will must be identified with a persistent principle of preference. And while (as the critics of Wundt's theory of apperception have insisted) there is some difficulty in reconciling the notion of a conscious function engaged in influencing its own states, with the notion of a consciousness composed wholly of states, it is possibly this latter notion that has made the difficulty. We need only say that the conception of an instinct or disposition capable of regulating the action of other instincts (as in the disposition to play) will furnish a sufficient psychological scheme for such a persistent principle. Its psychological expression would be that of a most general 'instinct.'

(d) *Royce recognizes the place for such an instinct, and partially describes it.*

In considering the will as a source of originality Royce describes an instinct of highly general character, which partly fulfils the conditions for choice above described.² The special problem being to account for "the apparently spontaneous variations of our habits which appear in the course of life and which cannot be altogether explained as due to external stimulations," they are referred to a restlessness, which is quantitative and to some degree characteristic of species, and which is "something very much more general in its character than is any one of the specific instincts upon which our particular habits are formed"

¹ *Outlines of Psychology*, p. 276.

² *Ibid.*, Ch. xiii.

(p. 318). This restlessness is something other than the rehearsal of an inherited repertoire of responses, such as Thorndike has appealed to. It is "the power of the organism to persist in seeking for new adjustments whether the environment at first suggests them or not, to persist in struggling toward its wholly unknown goal, whether there is any apparent opportunity for reaching such a goal or not." This restlessness may reach the intensity of an independent passion, as in the absorption of play or of invention; it is at the basis of all our current selective attention, so far as its quantity of persistence is concerned (p. 328). And as for its organic basis, it "depends upon vital activities which are as elemental as the 'tropisms' of the organisms upon which Loeb experimented" (p. 327; see also the preface). It may be called simply a "general instinct to persist in trying."

We can hardly agree in classing with the tropisms of Loeb a tendency or set of tendencies so non-specific in direction that their goal can be called 'wholly unknown,' save indeed for the fact that it is something novel, *i. e.*, something not identical with what is already familiar. Such an impulse (a negative iso-tropism?) would be open to the criticism of McDougall upon the possibility of an organic basis for curiosity.¹ But apart from this, the 'instinct to persist in trying' cannot be identical with the principle of selection which we seek, because of this same absence of content or direction. It would appear, of itself, to imply a still deeper and positive 'tropism'; for unless we are ready to say that the restlessness in question is purely a distaste of the old because it is old, or purely a love of action for the sake of being in action, it would be naturally explained as a case of the 'negative after-image' above described, a recognition thatt he self

¹ "This instinct is excited not by any simple sense-impressions, nor yet by any specific complex of sense-impressions; for there is no one class of objects to which it is especially directed or in the presence of which it is invariably displayed. . . . In short, the condition of excitement of the impulse of curiosity seems to be in all cases the presence of a strange or unfamiliar element in whatever is partly familiar, whether the object be one of sense-perception (as exclusively in the animals and very young children), or one contemplated in thought only. In either case the element of strangeness . . . is something which exists only for the organism, . . . and is, in fact, the *meaning* of the object for the organism in so far as curiosity is awakened." (William McDougall. *Body and Mind*, pp. 266f.)

as a whole is not satisfied in any of its present objects, because the self already knows 'subconsciously' what it wants.

(e) *Further suggestions for its description are found in the work of Jung and of Putnam. The concept of a "necessary wish or desire" defined.*

Whatever may be needed to complete the psychological concept of a selective principle, it is an important step in advance to have recognized, as Royce has done, the existence of such a thing as a general instinct, and to have proposed for it an elemental organic basis. What is required is a native tendency which is determined, not by the specific disposition of this or that nervous path, but by the form of metabolism of the nervous processes everywhere. It would be such a tendency that we could say, "To be alive is to wish thus and thus." Such a desire could be regarded as a *necessary desire*.

I have already mentioned that in the school of Freud, and especially in the work of C. G. Jung, there has been a tendency to recognize genetic relations among instincts, and finally to set up the hypothesis of an Ur-instinct from which all others are derived by differentiation. This is a result of the simple consideration that 'sublimation' implies a constant which undergoes transformation; and how far back one pursues the constant depends on how far one recognizes the scope of sublimation. For Freud the notion of 'libido' represents the constant of a group of allotropic sex-tendencies and their sublimations. For Jung, 'libido' loses its sexual character altogether and becomes as nearly as possible craving in general. "From the descriptive standpoint, psychoanalysis accepts the multiplicity of instincts. From the genetic standpoint it is otherwise. It regards the multiplicity of instincts as issuing out of relative unity, the primitive libido. It recognizes that definite quantities of the primitive libido are split off, associated with the recently created functions, and finally merged with them."¹ Jung himself draws the parallel between the introduction of this generalized concept of 'libido' and R. Mayer's introduction into dynamics of the modern concept of energy. "We term libido that energy which manifests itself

¹ *Theory of Psychoanalysis*, p. 42.

by vital processes, which is subjectively perceived as aspiration, longing and striving. We see in the diversity of natural phenomena the desire, the *libido*, in the most diverse applications and forms. . . . Claparède in a conversation once remarked that we could as well use the term 'interest.'"

Dr. James J. Putnam, who has been alert from the first to the philosophical aspect of Freud's psychology, and has repeatedly called the attention of his colleagues to their importance, has especially noted (in his Presidential Address before the American Psychopathological Association, May, 1913) the wider affiliations of the concept as used by Jung:

"Let its name be altered, and its functions but slightly more expanded, and we have Bergson's *poussée vitale*, the understudy of 'self-activity.'"

If the genetic surmises of Jung are substantiated,² we shall have made progress toward recognizing the empirical basis for a 'soul,' not alone in the sense of a result of integrative processes, but as a prior condition of such processes. It would remain, Jung thinks, as purely an hypothetical entity as physical energy. "I maintain that the conception of libido with which we are working is not only not concrete or known, but is an unknown *x*, a conceptual image, a token, and no more real than the energy in the conceptual world of the physicist."³ Yet he declares also that 'in nature' the artificial distinction between hunger and the sex impulse does not exist; that here we find only a continuous 'instinct of life,' a will to live, which so far coincides with the Will of Schopenhauer. It would be difficult to reconcile these two contrasting views of the original impulse, were it not apparent that the entities with which psychology deals are 'found in nature' in two quite different ways, (a) as the materials of experience and (b) as the accompanying (and, if you like, subconscious) conditions of the movement of experience, especially for its selective character. The most general instinct, under whatever name, is found in nature, but in the second way;

¹ *The Journal of Abnormal Psychology*, August-Sept., 1913, p. 12.

² They might profitably be compared with those of G. H. Schneider.

³ *Op. cit.*, p. 40.

hence it is certainly not known as a physical object may be known. But it is not merely an hypothesis.

(f) *The resulting view of ethics attaches some meaning to the concept of an ethics 'from above.'*

If we are right in concluding that on psychological grounds as well as on metaphysical grounds there is a continuity and identity in that life-policy which we call the will, soul, or self, the law of our life must be defined in terms of those objects or causes which this unitary wish can recognize as its own. What we have to seek in this world as moral agents is not primarily the satisfaction of a differentiating bundle of wishes: it is the satisfaction of the Wish.

Loyalty to the object which the Wish at any time can recognize as its own must determine the destiny of all minor wishes; though every such minor wish, other things equal, will be interpreted as a specific application of the original Wish. This will be its 'meaning'; and the ethics of particular instincts will be summarized in the principle, use them for what they mean.

When the Wish has embodied itself in a cause, however, there is a note of ruthlessness in its attitude to the outstanding wishes, which Royce has signalized in the word loyalty. It may not be amiss to point out the cognate note in a thinker of very different mould, who has likewise recognized a most general instinct, giving it the not wholly false name of the will to power. *Geist, said Nietzsche, ist das Leben, das selber in's Leben schneidet.*

But Nietzsche's conception of the wish, as a subjective urge for the unloading of energy, lacks just that element of permanent attachment to an external meaning which is insisted upon by both writers whom we have been comparing. And if, as Royce maintains, that external meaning is from the first the divine being, whether or not we consciously so define it, our rule of life becomes also, to this extent, an 'ethics from above.'

WILLIAM ERNEST HOCKING.

HARVARD UNIVERSITY.



JOSIAH ROYCE

1876

(Act. 20)

WORDS OF PROFESSOR ROYCE AT THE WALTON
HOTEL AT PHILADELPHIA, DECEMBER 29, 1915.¹

I WAS born in 1855 in California. My native town was a mining town in the Sierra Nevada,—a place five or six years older than myself. My earliest recollections include a very frequent wonder as to what my elders meant when they said that this was a new community. I frequently looked at the vestiges left by the former diggings of miners, saw that many pine logs were rotten, and that a miner's grave was to be found in a lonely place not far from my own house. Plainly men had lived and died thereabouts. I dimly reflected that this sort of life had apparently been going on ever since men dwelt thereabouts. The logs and the grave looked old. The sunsets were beautiful. The wide prospects when one looked across the Sacramento Valley were impressive, and had long interested the people of whose love for my country I heard much. What was there then in this place that ought to be called new, or for that matter, crude? I wondered, and gradually came to feel that part of my life's business was to find out what all this wonder meant. My earliest teachers in philosophy were my mother, whose private school, held for some years in our own house, I attended, and my sisters, who were all older than myself, and one of whom taught me to read. In my home I heard the Bible very frequently read, and very greatly enjoyed my mother's reading of Bible stories, although, so far as I remember, I was very generally dissatisfied with the requirements of observance of Sundays, which stand out somewhat prominently in my memory. Our home training in these respects was not, as I now think, at all excessively strict. But without being aware of the fact, I was a

¹ After the dinner at the Walton Hotel, Professor Royce, in acknowledgment of the kindness of his friends, made a brief statement, largely autobiographical in its character. The following is a summary of this statement, and is founded upon some notes which friends present amongst the guests have kindly supplied, to said the speaker to remind his friends of the spirit of what he tried to express.

born non-conformist. The Bible stories fascinated me. The observance of Sunday aroused from an early time a certain more or less passive resistance, which was stubborn, although seldom, I think, openly rebellious.

The earliest connected story that I independently read was the Apocalypse, from a large print New Testament, which I found on the table in our living room. The Apocalypse did not tend to teach me early to acquire very clear ideas. On the other hand, I did early receive a great deal of training in dialectics, from the sister nearest to me in age. She was three years my senior. She was very patiently persistent in showing me the truth. I was nearly as persistent in maintaining my own views. Since she was patient, I believe that we seldom quarrelled in any violent way. But on occasion, as I remember, our dear mother used, when the wrangling grew too philosophical, to set me the task of keeping still for an hour. The training was needed, but it was never wholly effective in suppressing for any great length of time the dialectical insistence.

I was not a very active boy. I had no physical skill or agility. I was timid and ineffective, but seem to have been, on the whole, prevailingly cheerful, and not extremely irritable, although I was certainly more or less given to petty mischief, in so far as my sisters did not succeed in keeping me under their kindly watch.

Since I grew during the time of the civil war, heard a good deal about it from people near me, but saw nothing of the consequences of the war through any closer inspection, I remained as vague about this matter as about most other life problems,—vague but often enthusiastic. My earliest great patriotic experience came at the end of the civil war, when the news of the assassination of Lincoln reached us. Thenceforth, as I believe, I had a country as well as a religious interest. Both of these were ineffective interests, except in so far as they were attached to the already mentioned enthusiasms, and were clarified and directed by the influence of my mother and sisters. Of boys outside the household I so far knew comparatively little, but had a considerable tendency, as I remember, to preach down to what

I supposed to be the level of these other boys,—a predisposition which did not prepare me for social success in the place in which I was destined to pass the next stage of my development, namely San Francisco.

When we went to live in San Francisco, I for the first time saw, first San Francisco Bay, and then the Ocean itself, which fascinated me, but which for a long time taught me little.

About June 1866, I began to attend a large Grammar School in San Francisco. I was one of about a thousand boys. The ways of training were new to me. My comrades very generally found me disagreeably striking in my appearance, by reason of the fact that I was redheaded, freckled, countrified, quaint, and unable to play boys' games. The boys in question gave me my first introduction to the 'majesty of the community.' The introduction was impressively disciplinary and persistent. On the whole it seemed to me 'not joyous but grievous.' In the end it probably proved to be for my good. Many years later, in a lecture contained in the first volume of my *Problem of Christianity*, I summarized what I remember of the lesson of the training which my schoolmates very frequently gave me, in what I there have to say about the meaning which lies behind the Pauline doctrine of original sin, as set forth in the seventh chapter of the Epistle to the Romans.

Yet my mates were not wholly unkind, and I remember lifelong friendships which I formed in that Grammar School, and which I still can enjoy whenever I meet certain of my dear California friends.

In the year 1871, I began to attend the University of California, where I received my first degree in 1875.

The principal philosophical influences of my undergraduate years were: 1. The really very great and deep effect produced upon me by the teaching of Professor Joseph LeConte,—himself a former pupil of Agassiz, a geologist, a comparatively early defender and exponent of the Darwinian theory, and a great light in the firmament of the University of California of those days; 2. The personal influence of Edward Rowland Sill, who was my teacher in English, during the last two years of my

undergraduate life; 3. The literary influence of John Stuart Mill and of Herbert Spencer, both of whom I read during those years. There was, at that time, no regular undergraduate course at the University of California.

After graduation I studied in Germany, and later at the Johns Hopkins University, still later returning a while to the University of California from 1878 to 1882. Since 1882 I have been working at Harvard. In Germany I heard Lotze at Göttingen, and was for a while strongly under his influence. The reading of Schopenhauer was another strong influence during my life as a student in Germany. I long paid a great deal of attention to the philosophy of Kant. But during the years before 1890, I never supposed myself to be very strongly under the influence of Hegel, nor yet of Green, nor of either of the Cairds. I should confess to the charge of having been, during my German period of study, a good deal under the influence of the Romantic School, whose philosophy of poetry I read and expounded with a good deal of diligence. But I early cherished a strong interest in logic, and long desired to get a fair knowledge of mathematics.

When I review this whole process, I strongly feel that my deepest motives and problems have centered about the Idea of the Community, although this idea has only come gradually to my clear consciousness. This was what I was intensely feeling, in the days when my sisters and I looked across the Sacramento Valley, and wondered about the great world beyond our mountains. This was what I failed to understand when my mates taught me those instructive lessons in San Francisco. This was that which I tried to understand when I went to Germany. I have been unpractical,—always socially ineffective as regards genuine ‘team play,’ ignorant of politics, an ineffective member of committees, and a poor helper of concrete social enterprises. Meanwhile I have always been, as in my childhood, a good deal of a non-conformist, and disposed to a certain rebellion. An English cousin of mine not long since told me that, according to a family tradition current in his community, a common ancestor of ours was one of the guards who stood about the scaffold of Charles the First. I can easily mention the Monarch in

modern Europe, in the guard about whose scaffold I should most cheerfully stand, if he had any scaffold. So much of the spirit that opposes the community I have and have always had in me, simply, elementally, deeply. Over against this natural ineffectiveness in serving the community, and over against this rebellion, there has always stood the interest which has taught me what I nowadays try to express by teaching that we are saved through the community.

The resulting doctrine of life and of the nature of truth and of reality which I have tried to work out, to connect with logical and metaphysical issues, and to teach to my classes, now seems to me not so much romanticism, as a fondness for defining, for articulating, and for expounding the perfectly real, concrete, and literal life of what we idealists call the 'spirit,' in a sense which is indeed Pauline, but not merely mystical, super-individual; not merely romantic, difficult to understand, but perfectly capable of exact and logical statement.

The best concrete instance of the life of a community with which I have had the privilege to become well acquainted, has been furnished to me by my own Seminary, one of whose meetings you have so kindly and graciously permitted me to attend as leader, on this to me so precious occasion.

. . . But why should you give so kind an attention to me at a moment when the deepest, the most vital, and the most practical interests of the whole community of mankind are indeed imperilled, when the spirit of mankind is overwhelmed with a cruel and undeserved sorrow, when the enemies of mankind often seem as if they were about to triumph?

Let me simply say in closing, how deeply the crisis of this moment impresses me, and how keenly I feel the bitterness of being unable to do anything for the Great Community except to thank you for your great kindness, and to hope that we and the Community shall see better times together. Certainly unless the enemies of mankind are duly rebuked by the results of this war, I, for one, do not wish to survive the crisis. Let me then venture, as I close, to quote to you certain words of the poet Swinburne. You will find them in his *Songs before Sunrise*. Let the poet

and prophet speak. He voices the spirit of that for which, in my poor way, I have always in my weakness been working.

A WATCH IN THE NIGHT.

BY A. C. SWINBURNE.

Watchman, what of the night?—
Storm and thunder and rain,
Lights that waver and wane,
Leaving the watchfires unlit.
Only the balefires are bright,
And the flash of the lamps now and then
From a palace where spoilers sit,
Trampling the children of men.

Prophet, what of the night?—
I stand by the verge of the sea,
Banished, uncomforted, free,
Hearing the noise of the waves
And sudden flashes that smite
Some man's tyrannous head,
Thundering, heard among graves
That hide the hosts of his dead.

Mourners, what of the night?—
All night through without sleep
We weep, and we weep, and we weep.
Who shall give us our sons?
Beaks of raven and kite,
Mouths of wolf and of hound,
Give us them back whom the guns
Shot for you dead on the ground.

Dead men, what of the night?—
Cannon and scaffold and sword,
Horror of gibbet and cord,
Mowed us as sheaves for the grave,
Mowed us down for the right.
We do not grudge or repent.
Freely to freedom we gave
Pledges, till life should be spent.

Statesman, what of the night?—
The night will last me my time.
The gold on a crown or a crime
Looks well enough yet by the lamps.

Have we not fingers to write,
Lips to swear at a need?
Then, when danger decamps,
Bury the word with the deed.

Exile, what of the night?—
The tides and the hours run out,
The seasons of death and of doubt,
The night-watches bitter and sore.
In the quicksands leftward and right
My feet sink down under me;
But I know the scents of the shore
And the broad blown breaths of the sea.

Captives, what of the night?—
It rains outside overhead
Always, a rain that is red,
And our faces are soiled with the rain.
Here in the season's despite
Day-time and night-time are one,
Till the curse of the kings and the chain
Break, and their toils be undone.

Princes, what of the night?—
Night with pestilent breath
Feeds us, children of death,
Clothes us close with her gloom.
Rapine and famine and fright
Crouch at our feet and are fed.
Earth where we pass is a tomb,
Life where we triumph is dead.

Martyrs, what of the night?—
Nay, is it night with you yet?
We, for our part, we forget
What night was, if it were.
The loud red mouths of the fight
Are silent and shut where we are.
In our eyes the tempestuous air
Shines as the face of a star.

Europe, what of the night?—
Ask of heaven, and the sea,
And my babes on the bosom of me,
Nations of mine, but ungrown.

There is one who shall surely requite
All that endure or that err:
She can answer alone:
Ask not of me, but of her.

Liberty, what of the night?—
I feel not the red rains fall,
Hear not the tempest at all,
Nor thunder in heaven any more.
All the distance is white
With the soundless feet of the sun.
Night, with the woes that it wore,
Night is over and done.

May the light soon dawn. May the word of the poet and
prophet soon come true. This is my closing greeting to you.

A BIBLIOGRAPHY OF THE WRITINGS OF JOSIAH ROYCE.

By BENJAMIN RAND.

WORKS.

- Primer of Logical Analysis for the Use of Composition Students. San Francisco, 1881, pp. 77. Cf. *Mind*, VII, 1882, pp. 311-312.
- The Religious Aspect of Philosophy. Boston, Houghton, Mifflin Co., 1885; 7th ed., 1887, pp. xix, 484. Cf. (S. Alexander) *Mind*, X, 1885, pp. 509-605; (Fr. Paulhan) *Rev. philos.*, XX, 1885, pp. 283-296; *Philos. Monatsch.*, XXII, 1886, pp. 540-560.
- California from the Conquest in 1846 to the Second Vigilance Committee in San Francisco (1856); A Study of American Character. (American Commonwealth Series.) Boston, Houghton, Mifflin Co., 1886, pp. xv, 513.
- The Feud of Oakfield Creek: A Novel of California Life. Boston, Houghton, Mifflin Co., 1887, pp. iii, 483.
- The Spirit of Modern Philosophy. Boston, Houghton Mifflin Co., 1892; *ib.*, 1897, pp. xv, 519. Cf. (J. E. Creighton) *PHILOS. REV.*, I, 1892, pp. 322-325; *Mind*, XVII, 1892, pp. 427-428; *The Monist*, III, 1893, pp. 306-311; (G. Rodier) *Rev. philos.*, XXXIV, 1892, pp. 81-92; (F. Jodl) *Zeitsch. f. Phil. u. ph. Krit.*, CIV, 1894, pp. 117-119; (C. S. Schaarschmidt) *Philos-Monats.*, XXVI, 1886, pp. 540-544.
- The Conception of God. Together with comments thereon by S. E. Mezes, J. Le Conte, and G. H. Howison. Berkeley (Cal.), Philosophical Union, 1895, pp. 84; New York and London, Macmillan, 1897. Pp. xxviii, 354.
The second edition is enlarged by "The Absolute and the Individual: a supplementary discussion with replies to criticisms" by Professor Royce, pp. 135-354.
- Studies of Good and Evil: A Series of Essays upon Problems of Life and Philosophy. New York, D. Appleton & Co., 1898, pp. xvii, 384. Cf. (J. E. Creighton) *PHILOS. REV.*, VIII, 1899, pp. 66-69; (J. W. Chadwick) *Nation*, LXVII, 1898, 263-264; (C. K. Sherman) *Chicago Dial*, XXVI, 1898, 121, 264; 1899, 123 (G. F. Stout) *Mind*, XXIV, 1899, pp. 118-119.
- The World and the Individual (Gifford Lectures). 2 vols. New York and London, Macmillan, 1900-1902; *ib.*, 1904, pp. xvii, 588, xx, 480. Cf. (J. E. McTaggart) *Mind*, XXV, 1900, pp. 258-266; *ib.*, XXVII, 1902, pp. 557-563; (J. Dewey) *PHILOS. REV.*, IX, 1900, pp. 311-324; *ib.*, XI, 1902, pp. 392-407; (Henry Jones) *Hibbert Journal*, I, 1902-1903, pp. 132-144; (C. M. Bakewell) *Inter. Jour. of Ethics*, XII, 1901-02, pp. 389-398; (C. S. Peirce) *Nation*, LXX, 1900, p. 267;

- LXXV, 1902, pp. 94-96; (S. S. Colvin) *Amer. Jour. of Psych.*, XI, 1900, p. 596; (R. M. Wenley) *Science*, XV, 1902, 347-8; *Intern. Quart.*, II, 1900, pp. 555-583; (W. Caldwell) *Chicago Dial.*, xxxii, pp. 148-151; *Outlook*, LXVI, pp. 466-467; *ib.*, LXXI, pp. 511-512; R. C. Cabot, *Harv. Grad. Mag.*, VIII, 1900, pp. 317-321; (J. F. Hite) *New. Church Rev.* X, 97; (J. Segond) *Rev. Phil.*, LI, 1901, pp. 409-411; (A. Penjon), *ib.*, LV, 1903, pp. 189-190.
- The Conception of Immortality. Boston and New York, Houghton Mifflin Co., 1900. *Ib.*, London, Constable, 1904, pp. 98. Cf. *Nation*, LXX, 1900, p. 460; *Outlook*, LXVI, pp. 227-228.
- Present Position of the Problem of Natural Religion. (Dudleian Lecture at Harvard University for 1901-02.) Typewritten mss., Harvard University Library, n. p., n. d., 8°.
- Outlines of Psychology. New York and London, Macmillan, 1903; *ib.*, 1906; *ib.*, 1908, pp. xxvii, 392. Cf. (J. F. Muirhead) *Mind*, XXVIII, 1903, pp. 546-547; *Nation*, LXXIX, 1904, pp. 264-265; *Independent*, LV, 1903, pp. 2179-80.
- Herbert Spencer, an Estimate and a Review, together with a chapter of personal reminiscences by James Collier. New York, Fox Duffield & Co., 1904, pp. 234. Cf. (E. H. Griffin) *Psychol. Bull.*, II, 1905, pp. 205-207.
- Wie unterscheiden sich gesunde und krankhafte Geisteszustände beim Kinde. (*Pädagogische Magazin*, Heft XLIV.) 2 Aufl., Langensalza, H. Beyer und Sohn, 1904.
- The Relation of the Principles of Logic to the Foundations of Geometry (in *Transactions of the American Mathematical Society*, VI, no. 3, July, 1905, pp. 353-415), Lancaster, Pa., 1905, pp. 63. Cf. (T. de Laguna) *Jour. of Phil., Psy. and Sci. Meth.*, III, 1906, pp. 357-361.
- The Philosophy of Loyalty. New York, Macmillan, 1908, pp. xiii, 409. Cf. (Amy E. Tanner) *Amer. Journ. of Psychol.*, XX, 1908, pp. 409-412; (F. C. Sharp) *Journ. of Phil., Psy. and Sci. Meth.*, VI, 1909, pp. 77-80; (J. W. Scott) *Mind*, XVIII, 1909, pp. 270-276; (W. R. Sorley) *Hibbert Journ.*, VII, 1908, pp. 207-210; (F. Thilly) *PHILOS. REV.*, XVIII, 1908, pp. 541-548; (D. S. Muzzey) *Inter. Journ. of Ethics*, XIX, 1909, pp. 509-510; (G. Jacoby) *Ztsch. f. Phil. u. ph. Krit.*, CXXXIX, 1910, pp. 242-243.
- Race Questions, Provincialisms, and Other American Problems. New York and London, Macmillan, 1908, pp. xiii, 287. Cf. (C. H. Rieber) *Journ. of Phil., Psy. and Sci. Meth.*, VI, 1909, pp. 162-166; (J. Riley) *Amer. Journ. of Psych.*, XX, 1909, pp. 588-589.
- La filosofia della fedella. Trad. della inglese di Guiseppe Renzi. Bari, Caterza, 1911.
- William James and other Essays on the Philosophy of Life. New York, The Macmillan Co., 1911, pp. xi, 301. Cf. (J. E. Creighton) *PHILOS. REV.*, XXI, 1912, pp. 478-479; (R. F. A. Hoernlé) *Mind*, XXXVIII, 1913,

- pp. 563-566; (H. M. Kallen) *Journ. of Phil., Psy. and Sci. Meth.*, IX, 1912, pp. 548-558; (E. B. Crooks) *Inter. Journ. of Ethics*, XXII, 1912, pp. 354-358.
- The Sources of Religious Insight. New York, C. Scribner's Sons, 1912, pp. xvi, 297. Cf. (J. Loewenberg) *Inter. Journ. of Ethics*, XXIII, 1912, pp. 85-88.
- Prinzipien der Logik. In *Encyclopädie der philosophischen Wissenschaften*, Bd. I. Tübingen, C. B. Mohr, 1912, pp. 107-112. English transl. by B. Ethel Meyer. (In *Encyclopædia of the Philosophical Sciences*, Vol. I.) London, Macmillan, 1913, pp. 67-135. Cf. (A. Wolf) *Hibbert Journ.*, XII, 1914, pp. 946-950; (C. D. Broad) *Mind*, XXXIX, pp. 274-277.
- The Problem of Christianity. 2 vols. New York, The Macmillan Co., 1913, pp. xlvi, 425; vi, 442. Cf. (W. E. Hocking) *Harvard Theol. Rev.*, VII, 1914, pp. 107-112; (L. P. Jacks) *Hibbert Journ.*, XII, 1913, pp. 215-220; (W. A. Brown) *Journ. of Phil., Psy. and Sci. Meth.*, XI, 1914, pp. 608-616; *North Amer. Rev.*, CXCVIII, 1913, pp. 282-286.
- Il mondo e l'individuo. Trad. della inglese di Giuseppe Renzi. 2 vols., Bari, Laterza, 1913-1914.
- War and Insurance. New York, The Macmillan Co., 1914, pp. xlviii, 96.

CONTRIBUTIONS.

- Appleton's Cyclopaedia of American Biography. New York, D. Appleton & Co., 1887. (Biographies of American pioneers.)
- Thompson, Anna Boynton. The Unity of Fichte's Doctrine of Knowledge, with an Introduction by Josiah Royce. Boston, Ginn & Co., 1895, pp. ix-xx.
- Dialogues of Plato. Translated by Benjamin Jowett, with a biographical and critical introduction by Josiah Royce. New York, D. Appleton & Co., 1898.
- Baldwin, J. M. (ed.) Dictionary of Philosophy and Psychology. London and New York, Macmillan, 1901; Greek Terminology, I, pp. 422-430; Hegel's Terminology, I, pp. 454-465; Kant's Terminology, I, pp. 588-598.
- Fiske, John. Outlines of Cosmic Philosophy, with Introduction by Josiah Royce. Boston, Houghton Mifflin Co., 1903, pp. xxi-cxlvix.
- Congress of Arts and Sciences, Universal Exposition, St. Louis, 1904. Boston, Houghton Mifflin Co, 1905; The Sciences of the Ideal, I, pp. 151-168.
- Rand, Benjamin. Modern Classical Philosophers. Boston, Houghton Mifflin Co., 1908; Giordano, Bruno. Concerning the Cause, the Principle and the One. Translated by Josiah Royce and Katharine Royce, pp. 1-23.
- Bericht über den III internationalen Kongress für Philosophie zu Heidelberg, 1 bis 5 Sept., 1908. Heidelberg, Carl Winter, 1903; The Problem of Truth in the Light of Recent Discussion. Pp. 62-93. Also in J. Royce's William James and other essays, New York, 191, pp. 187-254.

Hastings, James (ed). *Encyclopædia of Religion and Ethics*. New York, Ch. Scribner's Sons, 1910-16: 'Axiom, I, pp. 279-282; Mind, VIII, pp. 649-657; Orden, IX, (in press).

Enriques, Federigo. *Problems of Science*; translated by Katharine Royce, with an introductory note by Josiah Royce, Chicago, Open Court Pub. Co., 1914, pp. ix-xiii.

ARTICLES.

The Intention of the Prometheus Bound of Æschylus: being an introduction in the department of Greek theology. Thesis. *California University Bulletin*, 1875, pp. 25.

The Life Harmony, *Overland Monthly*, XV, 1875, pp. 157-164.

The Nature of Voluntary Progress. *Berkeley Quarterly*, edited by Crane, 1879.

The Interdependence of Human Knowledge. N. p. 1878. (A thesis in manuscript for the degree of Doctor of Philosophy at Johns Hopkins University.)

Schiller's Ethical Studies. *Journal of Speculative Philosophy*, XII, 1878, pp. 373-392.

Shelley and the Revolution. *The Californian*, I, 1880, pp. 543-553.

The Decay of Earnestness. *The Californian*, III, 1881, pp. 18-25.

Doubting and Working. *The Californian*, III, 1881, pp. 229-237.

Kant's Relation to Modern Philosophic Progress. *Journal of Speculative Philosophy*, XV, 1881, pp. 360-381. (Read at Kant's Centennial at Saratoga, July 6, 1881.)

"Mind-stuff" and Reality. *Mind*, VI, 1881, pp. 365-377.

Mind and Reality. *Mind*, VII, 1882, pp. 30-54.

The Freedom of Teaching. *Overland Monthly*, Sept., 1883, pp. 235-240.

Report of the Committee on Apparitions and Haunted Houses. *Proc. of Amer. Soc. for Psychical Research*, I, 1887, No. 3, pp. 223-229.

Hallucination of Memory and 'Telepathy.' *Mind*, XIII, 1888, pp. 244-248.

Is there a Philosophy of Evolution? *Unitarian Review*, XXXII, 1889, pp. 1-29, 97-113.

The Practical Value of Philosophy. *Ethical Record*, April, 1889, pp. 9-22.

Report of the Committee on Phantasms and Presentiments. *Proc. of Amer. Soc. for Psychical Research*, I, 1889, No. 4, pp. 350-526, 565-567.

Frémont. *Atlantic Monthly*, LXVI: 1890, pp. 548-557.

Dr. Abbot's Way Out of Agnosticism. *International Journal of Ethics*, I, 1890, pp. 98-115.

A New Study of Psychology (James). *International Journal of Ethics*, I, 1890, pp. 143-160.

Dewey's Outlines of Ethics; Spencer's Justice, and other Reviews in the *International Journal of Ethics*, I-X, 1890-1900.

Present Ideals of American University Life. *Scribner's Magazine*, X, 1891, pp. 376-388.

- Montgomery and Frémont. New Documents on the Bear Flag Affair. *Century Magazine*, XLI, 1891, pp. 780-783.
- The Frémont Legend. *Nation*, LII, 21, May, 1891, pp. 423-425.
- The Outlook in Ethics. *International Journal of Ethics*, II, 1891, pp. 106-111.
- Is there a Science of Education? *Educational Review*, I, Jan., Feb., 1891, pp. 15-25, 121-132.
- Two Philosophers of the Paradoxical. Hegel, *Atlantic Monthly*, LXVII, Jan., 1891, pp. 45-60; Schopenhaur, id., LXVII, Feb., 1891, pp. 161-173.
- The Implications of Self-consciousness. *New World*, I, 1892, pp. 289-310.
- On Certain Psychological Aspects of Moral Training. *International Journal of Ethics*, III, 1893, pp. 413-436.
- The Knowledge of Good and Evil. *International Journal of Ethics*, IV, 1893, pp. 48-80.
- Tolstoi and the Unseen Moral Order. *Liber Scriptorum*, 1894, pp. 488-497.
- The External World and the Social Consciousness. *Philosophical Review*, III, 1894, pp. 513-545. Cf. J. T. Merz, A History of European Thought in the Nineteenth Century, Edin., 1914, Vol. IV, p. 437.
- The Imitative Functions. *Century Magazine*, XLVIII, 1894, pp. 137-144.
- The Case of John Bunyan. *Psychological Review*, I, 1894, pp. 22-33, 134-151, and 230-240. (Abstract in *Proc. of Amer. Psychol. Assoc.* New York, The Macmillan Co., 1894, pp. 17-18.)
- Self-consciousness, Social Consciousness, and Nature. *Philosophical Review*, IV, 1895, pp. 465-485, 577-602.
- Some Observations on the Anomalies of Self-consciousness. *Psychological Review*, II, 1895, pp. 433-457, 574-584.
- Preliminary Report on Imitation. *Psychological Review*, II, 1895, pp. 217-235.
- Natural Law, Ethics and Evolution. *International Journal of Ethics*, V, 1895, pp. 485-500.
- Review of Recent Literature on Mental Development. *Psychological Review*, III, 1896, pp. 201-211.
- Certitudes and Illusions. *Science*, 1896, N. S., III, pp. 354-355.
- Originality and Consciousness. *Harvard Monthly*, June, 1897, pp. 133-142.
- Systematic Philosophy in America in the Years 1893, 1894 and 1895. *Archiv für systematische Philosophie*, III, 1897, pp. 245-266.
- The New Psychology and the Consulting Psychologist. *Forum*, XXVI, 1898, pp. 80-96. *Addr. & Proc. Nat. Educ. Assoc.* 1898, pp. 554-570.
- The Social Basis of Conscience. (Abstract and discussion.) *Addresses and Proceedings of National Education Association*, 1898, pp. 196-204.
- The Psychology of Invention. *Psychological Review*, V, 1898, pp. 113-144.
- The Pacific Coast: A Psychological Study of Influence. *The International Monthly*, II, 1900, pp. 555-583: In "Race Questions," N. Y., 1908, pp. 169-265.
- Professor Everett as a Metaphysician. *New World*, IX, 1900, pp. 726-741.
- Joseph Le Conte. *International Monthly*, IV, 1901, pp. 324-334.
- John Fiske as a Philosopher. *The Transcript* (Boston), July 13, 1901.
- John Fiske as a Thinker. *Harvard Graduate Magazine*, Sept., 1901, pp. 23-33.

- Recent Logical Inquiries and Their Psychological Bearings. *Psychological Review*, IX, 1902, pp. 105-133.
- The Concept of the Infinite. *The Hibbert Journal*, I, 1902, pp. 21-45.
- The Problem of Natural Religion. *International Quarterly*, VII, 1903, pp. 85-107.
- What Should be the Attitude of Teachers of Philosophy Towards Religion? *International Journal of Ethics*, XIII, 1903, pp. 280-285.
- Pope Leo's Philosophical Movement. *Review of Catholic Pedagogy*, Nov.-Dec., 1903, pp. 1-17.
- Herbert Spencer and His Contribution to the Concept of Evolution. *International Quarterly*, IX, 1904, pp. 335-365.
- The Sciences of the Ideal. *Science*, N. S., XX, 1904, pp. 449-462.
- The Eternal and the Practical. *Philosophical Review*, XIII, 1904, pp. 113-142. Cf. (H. Bawden) *Psychol. Bull.*, I, 1904, pp. 320-324.
- Kant's Doctrine of the Basis of Mathematics. *Journal of Philosophy, Psychology and Scientific Methods*, II, 1905, pp. 197-207.
- Race Questions and Prejudices. *International Journal of Ethics*, XVI, 1906, pp. 265-287: In "Race Questions," N. Y., 1908, pp. 3-83.
- The Present State of the Question Regarding the First Principles of Theoretical Science. *Proceedings of American Philosophical Society*, V, 1906, pp. 82-102.
- Immortality. *The Hibbert Journal*, V, 1907, pp. 724-744.
- Provincialism Based upon a Study of Early Conditions in California. *Putnam's Magazine*, VII, 1909, pp. 232-240.
- The American College and Life. *Science*, N. S., XXIX, 1909, pp. 401-407.
- What Is Vital in Christianity? *Harvard Theological Review*, II, 1909, pp. 408-445.
- The Reality of the Temporal. *International Journal of Ethics*, XX, 1910, pp. 257-270.
- James as a Philosopher. *Science*, N. S., XXXIV, 1911, pp. 33-45.
- On Definitions and Debates. *Journal of Philosophy, Psychology and Scientific Methods*, IX, 1912, pp. 85-100.
- Atonement. *The Atlantic Monthly*, CXI, 1913, pp. 406-419.
- Some Psychological Problems Emphasized by Pragmatism. *Popular Science Monthly*, LXXXIII, 1913, pp. 394-412.
- Essential Contrast Between Christianity and Buddhism. *Current Opinion*, LV, 1913, pp. 41-42. (Portrait.)
- George Fox as a Mystic. *The Harvard Theological Review*, VI, 1913, pp. 31-59.
- Psychological Problems Emphasized by Pragmatism. *Popular Science Monthly*, LXXXIII, 1913, pp. 394-411.
- Relations Between Philosophy and Science in the First Half of the Nineteenth Century. *Science*, N. S., XXXVIII, 1913, pp. 567-584.
- The Second Death. *The Atlantic Monthly*, CXI, 1913, pp. 242-254.
- An Extension of the Algebra of Logic. *Journal of Philosophy, Psychology and Scientific Methods*, X, 1913, pp. 617-633.

- The Christian Doctrine of Life. *The Hibbert Journal*, XIII, 1913, pp. 473-496.
- The Mechanical, the Historical and the Statistical. *Science*, N. S., XXXIX, 1914, pp. 551-566.
- Professor Royce on His Reviewer. *New Republic*, I, 1914, p. 23.
- A Word for the Times. *Harvard Graduate Magazine*, XXIII, Dec., 1914, pp. 207-209.
- The Carnegie Foundation for the Advancement of Teaching and the Case of Middlebury College. *School and Society*, I, 1915, pp. 145-150.
- An American Thinker on the War. *The Hibbert Journal*, XIV, 1915, pp. 37-42.
- The Hope of the Great Community. *The Yale Review*, V, Jan., 1916, 269-291.
- The Duties of Americans in the Present War. An address delivered at Tremont Temple (Boston), Sunday, January 30, 1916. Pp. 8. (Address for copies D. Austin, 50 Bromfield St., Boston, Mass.)

CRITICISM.

- Aliotta, Professor. The Idealistic Reaction Against Science. Trans. by Agnes McCaskell. London, Macmillan, 1914, pp. 240-269.
- Baldwin, J. M. Social and Ethical Interpretation in Mental Development. New York, The Macmillan Co., 1897, pp. 9f, 231f. Appendices C, E, H.
- Becelaere, L. van. La philosophie en Amerique. New York, Eclectic Publ. Co. [1914], pp. 111-113.
- Boodin, J. E. Truth and Reality. New York, The Macmillan Co., 1911, pp. 109-111, 160.
- Bradley, F. H. Essays on Truth and Reality. Oxford, 1914, pp. 277-280.
- Bosanquet, B. The Principle of Individuality and Value. Macmillan, London, 1912, pp. 69, 82, 387, 394.
- Buckham, John W. The Contribution of Prof. Royce to Christian Thought. *Harvard Theological Review*, VIII, 1915, pp. 219-237.
- Caldecott, Alfred. The Philosophy of Religion in England and America. New York, The Macmillan Co., 1901, pp. 163-165.
- Calkins, Mary W. Psychology. New York, The Macmillan Co., pp. 341ff, 445.
- The Persistent Problems of Philosophy. New York, The Macmillan Co., 1907, p. 418f.
- Carr, E. S. Royce's Philosophy of Religion. *Bibliotheca Sacra*, LXXI, 1914, pp. 283-295.
- Driscoll, J. S. Prof. Royce on the Problem of Christianity. *North American Review*, CXCVIII, 1913, pp. 640-652.
- Fullerton, G. S. A System of Metaphysics. New York, The Macmillan Co., 1901, pp. 585-597.
- The World We Live In. New York, The Macmillan Co., 1912, pp. 198-228, 283-286.
- Galloway, George. Studies in the Philosophy of Religion. Edinburgh, 1904, pp. 228f.
- The Principles of Religious Development. London, The Macmillan Co., 1909, pp. 86, 338f.

- Henderson, Lawrence J. *The Fitness of the Environment*. New York, The Macmillan Co., 1913. (Acknowledgment in preface.)
- Hocking, W. E. *The Meaning of God in Human Experience*. New Haven, Yale University Press, 1912, pp. 158ff; 351; 498ff.
- Inge, W. R. Institutionalism and Mysticism. *Hibbert Journal*, XII, 1914, pp. 766-779.
- James, William. *Pragmatism*, New York, Longmans, Green & Co., 1907. See Index.
- A Pluralistic Universe, New York, Longmans, Green & Co., 1909. See Index.
- Kawaguchi, U. Doctrine of Evolution and the Conception of God: Philosophies of Royce and Eucken. *American Journal of Theology*, XIX, 1915, pp. 556-576.
- Macintosh, Douglas Clyde. *The Problem of Knowledge*. New York, The Macmillan Co., 1915, p. 141f.
- Mezes, S. E. *Ethics, Descriptive and Explanatory*. New York, The Macmillan Co., 1901, pp. 62, 113, 143.
- Moore, A. W. Some Logical Aspects of Purpose, in. J. Dewey, ed. "Studies in Logical Theory." Chicago, University of Chicago Press, 1903, pp. 341-382.
- Ormond, Alexander Thomas. *Foundations of Knowledge*. London, The Macmillan Co., 1900.
- Perry, Ralph Barton. Professor Royce's Refutation of Realism and Pluralism. *The Monist*, XII, 1902, pp. 446-458.
- Present Philosophical Tendencies. New York, Longmans, 1912, pp. 161, 175-184, 191.
- Riley, Woodbridge. *American Thought*. New York, H. Holt & Co., 1915, pp. 253-265.
- Rob'et, H. Un metaphysicien américain contemporain, J. Royce. *Revue philosophique*, LXIII, 1907, pp. 113-139.
- Russell, J. E. *First Course in Philosophy*. New York, H. Holt & Co., 1913, pp. 55-60, 292-295.
- Taylor, A. E. *Elements of Metaphysics*. London, Methuen & Co., 1903, p. 148ff.
- Thilly, Frank. *A History of Philosophy*. New York, H. Holt & Co., 1914 p. 559ff.
- Urban, W. M. *Valuation, Its Nature and Laws*. London, Swan Sonnenschein & Co., 1909, pp. 62, 126, 234.
- Ward, James. *The Realm of Ends*. Cambridge, University Press, 1911, pp. 129n., 297, 312-315, 411.

